

2005 Water Quality Report

For many years, water quality monitoring on Go Home Lake has been funded solely by your Association and limited to a single test of 25 locations around the lake conducted on the Victoria Day weekend.

Water quality monitoring on the lake has been significantly increased for the past six summers (2000-2005), with the addition of biweekly testing of 6 selected sites from late June until mid September. This additional testing has been made possible with financial assistance from the Township of Georgian Bay, District of Muskoka, and the GBA Foundation. The monitoring program measures Total Coliforms (TC), Escherichia coli (E. coli) and water clarity (Secchi depth) at each of the 6 sites 7 times over the summer.

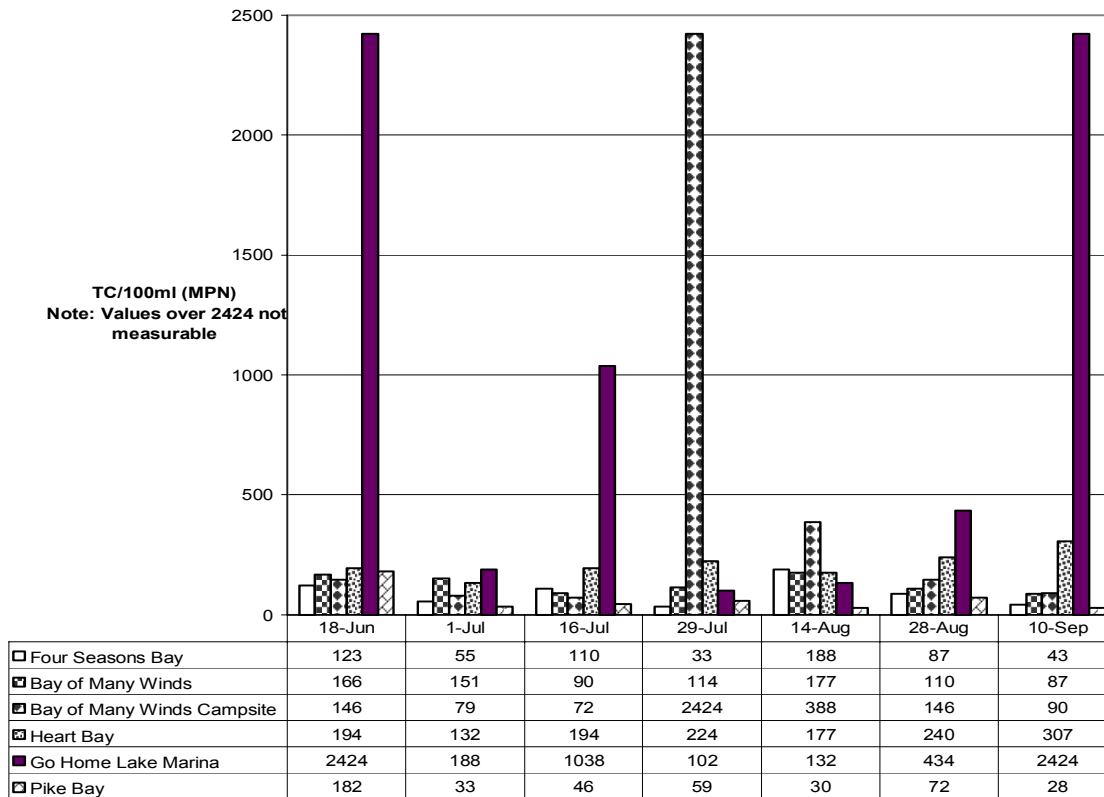
This year, for the first time, and with the kind assistance of Paul Wiancko of Six Mile Lake, depth profiles to analyze water temperature, dissolved oxygen, conductivity (a measure of water source and circulation patterns), clarity and total phosphorus were conducted at 7 locations (southern Control Dam outlet, Blue Lagoon, Four Seasons Bay, Bay of Many Winds, Crystal Bay, Manning Bay and the inflow at Swallow Bay) in September.

Total Coliforms

Total Coliform readings during the summer of 2005 were significantly lower, in general, than those obtained in previous years, with only four samples exceeding the Ontario recreational waters guideline of 1000 TC/100ml.

The majority of organisms measured by the TC test occur naturally in the environment, and enter the lake through soil runoff and decaying organic matter. There is little evidence that human activity contributes significantly to TC readings.

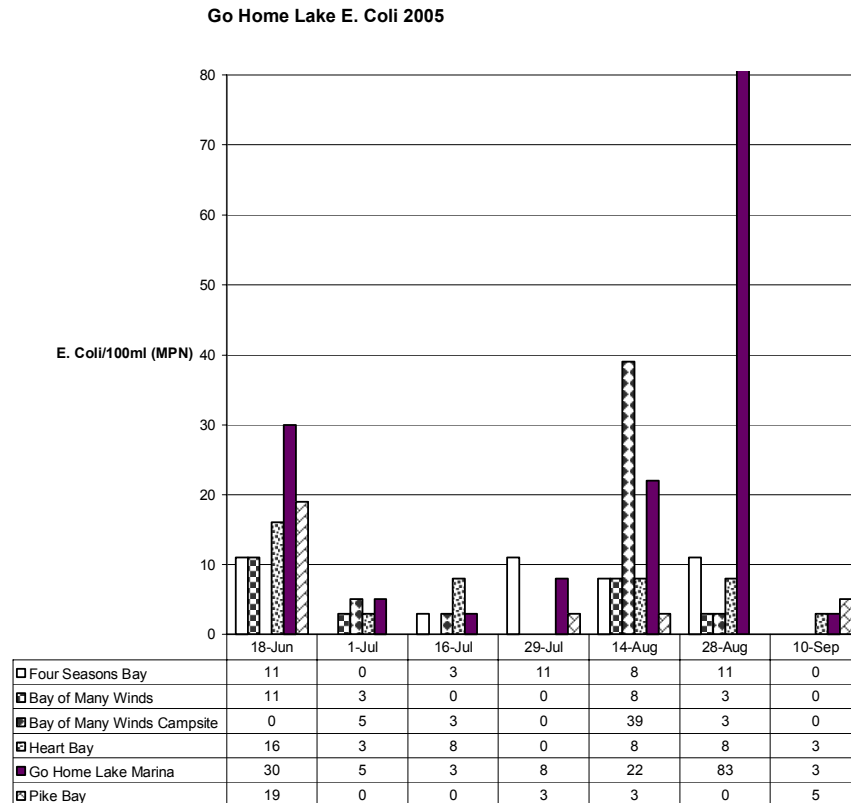
Go Home Lake Total Coliforms 2005



E. Coli

E. Coli, an organism which is abundant in human and animal excreta is now favoured as an indicator of fecal contamination. Studies have shown that illness rates among recreational water users increase with fecal-associated bacteria levels in the water. Health Canada has established a guideline of 0 E. Coli/100ml for drinking water, while Ontario uses 100 E. Coli/100ml as the recreational water guideline. Because children typically ingest quantities of lake water while swimming or playing, the GBA has proposed an objective of 10 E. Coli/100ml for our recreational waters.

E. Coli readings during the summer of 2005 showed considerable deterioration compared to 2004 and prior years. Although E. Coli counts on Go Home Lake never reached the provincial guideline during the summer, ten results spanning all six sites (compared to four each in of 2003 and 2004) exceed the GBA objective. These results may have been influenced by the extreme rainfall event in mid-June and slightly higher than normal lake water temperatures over the summer.



Summary

In summary, water quality conditions were generally quite good in Go Home Lake during the summer of 2005. The Total Coliform readings were considerably lower than observed in prior years, however the significant upward trend in average seasonal E. Coli levels for 2005 is cause for concern and warrants continued monitoring as human activity continually increases on the lake.

Results obtained from September's depth profile analysis are too lengthy to report here, however the highlights are:

- Conductivity measurements indicated good mixing throughout Go Home Lake
- Water clarity and dissolved oxygen results were good
- Phosphorous levels were similar to those observed in surrounding inland lakes, but are much higher than in Georgian Bay, indicating a need for continued monitoring

We hope to continue the water quality monitoring program in future years to enable us to track the effectiveness of our efforts to preserve this important natural resource. For further information on the program, contact Simon Edwards at 705 756 3445, 416 492 7696, or simon@tipperlinne.com