

## 2001 Water Quality Report

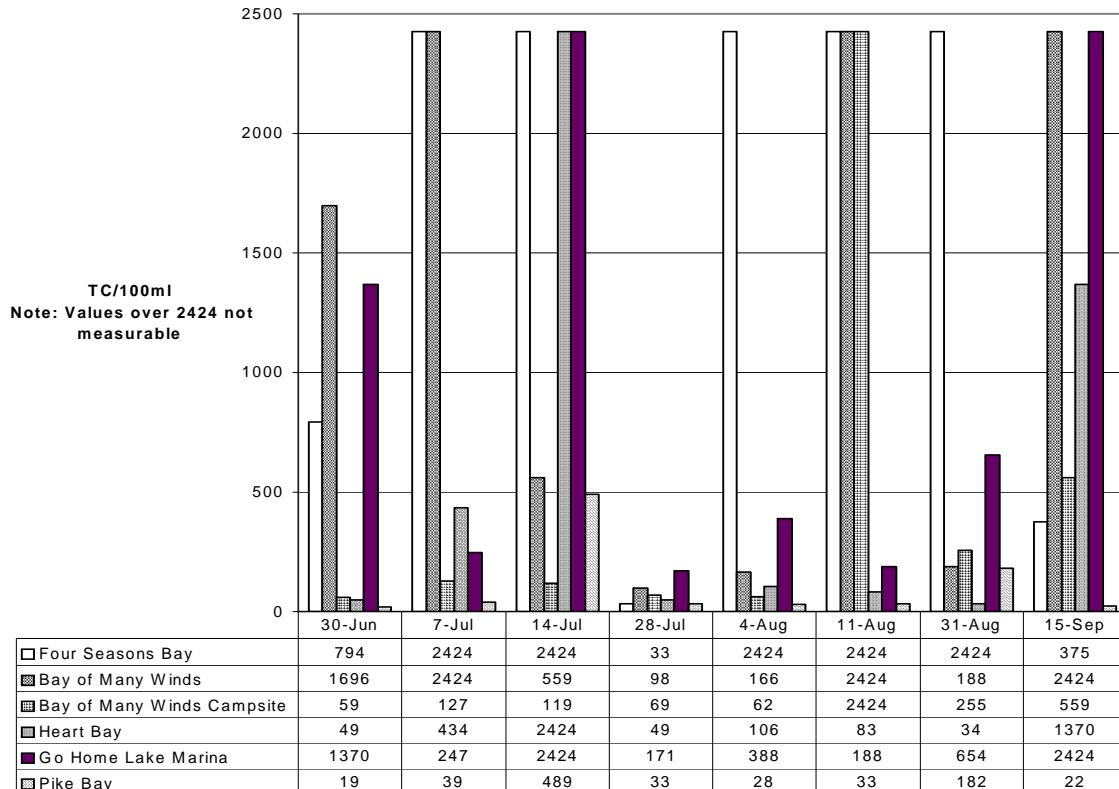
For many years, water quality monitoring on Go Home Lake has been funded solely by your Association and limited to a single test of 25 locations around the lake conducted on the Victoria Day weekend.

Water quality monitoring on the lake has been significantly increased for the past two summers (2000/2001), with the addition of bi-weekly testing of 6 selected sites from mid-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 8 times over the summer.

While the results obtained in the summer of 2000 were consistent with those obtained in previous years, during the summer of 2001 very high TC readings were recorded at several sites, in particular in Four Seasons Bay. We have been unable to determine the source of these high TC counts, however, through inquiries made to various government departments and the marine biologist assisting the GBA monitoring program, we have learned:

- 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.
- While the TC test is considered an indicator of water quality, high counts are not associated with increased illness rates among recreational water users.
- The Provincial recreational water guideline of 1000 TC/100ml is somewhat arbitrary, having been set at 10 times the E. Coli guideline of 100 E. Coli/100ml.
- Prior to the advent of modern testing methods, E. Coli was more difficult and expensive to measure than TC, thus high TC counts were used as an indication of the need for E. Coli testing. Both are now able to be measured in a single reliable, convenient and inexpensive test.

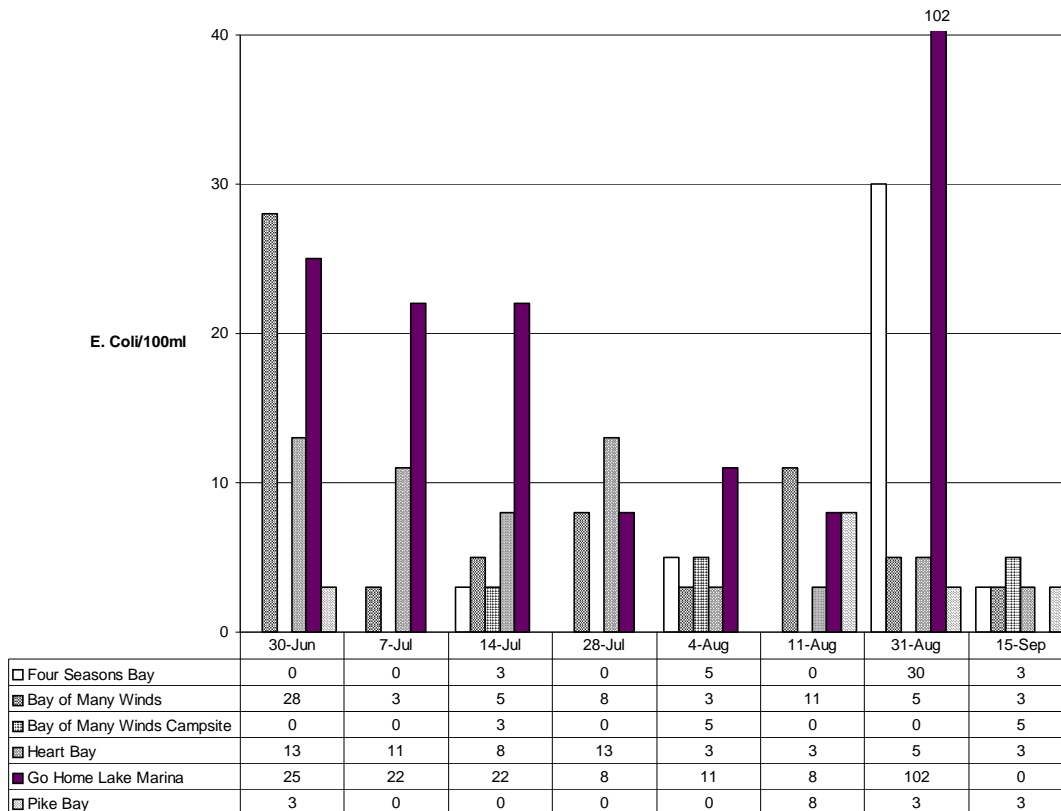
Go Home Lake Total Coliforms 2001



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.

As can be seen from the table below, E. Coli counts on Go Home Lake exceeded the provincial guideline only once during the summer, while over 75% of our results were below the GBA objective.

**Go Home Lake E. Coli 2001**



In summary, water quality conditions were generally good in Go Home Lake during the summer of 2001. Although the high TC readings remain unexplained, and may be an indicator of deteriorating water quality, they were not associated with corresponding high levels of E. Coli and therefore do not give rise to health concerns for recreational water users. We hope to continue this water quality monitoring program in future years to enable us to track the effectiveness of our efforts to preserve this important natural resource.

Space constraints prevent the inclusion of water clarity data and comparison with prior year results in this report, however further detail is available on request. Contact Simon Edwards at 705 756 3445, 416 492 7696, or [simon@tipperlinne.com](mailto:simon@tipperlinne.com)