

Lake Temagami Water Testing for *E. Coli* and Total Coliforms in 2025

By Christopher Brooks

This summer, TERAS (Temagami Environmental Research and Stewardship) funded the purchase of 50 test kits to detect *E. coli* and total coliforms in lake water. Testing occurred primarily in the NE Arm, although testing was also completed at three sites in other locations. In general, the results were good; but, it is not recommended to drink unfiltered lake water, especially in the NE Arm.

E. coli is a bacterium found in the intestines of warm-blooded animals. It is a type of coliform bacteria – but, not all coliform bacteria are *E. coli*. The presence of coliform bacteria indicates low sanitary quality and the potential for the presence of *E. coli*. Water that tests positive for *E. coli* or coliform bacteria should not be consumed without treatment. There are numerous other biological contaminants of concern. For example, Giardia and Cryptosporidium are two common pathogens. Only the presence of *E. coli* and total coliforms was, however, investigated.

The *E. coli* and total coliforms tests indicate the “Most Probable Number” of colonies of bacteria per 100 ml of water (MPN / 100 ml) – where zero is considered safe, and greater numbers are undesirable.

The following locations in the Northeast Arm tested negative for *E. coli* and had no total coliforms: the middle of the Axe Narrows and the mainland spring near Strathcona Landing.

E. coli was, however, detected at the Town docks (4.7 MPN / 100 ml). The following numbers in parentheses are the MPN / 100 ml results, and two numbers indicate multiple tests. Testing sites included: Island 27 near the Finlayson Park double docks (4.7); near Island 5 (1.2 and 1.5); near Island 108 (1.2); and, at the north dock at Temagami Island, where there was an overly-friendly duck (5.2).

In general, *E. coli* can be found close to shore, especially where streams enter the Lake (perhaps indicating the presence of warm-blooded animals, such as ducks or beavers, upstream). Health authorities do not recommend drinking untreated lake or spring water. In fact, Public Health Ontario states that well water with no *E. coli*, but a coliform reading of 5 MPN / 100 ml, “may be unsafe to drink” and should not be consumed. Fortunately, none of the tests exceeded the Ontario recommendation for a safe bathing level of 100 *E. coli* / 100 ml.

In addition, coliforms were detected, but *E. coli* was not detected, at the following locations: near Bell Island (1.0 and 2.1); near Island 49 (2.0 and 5.4); near Ship Island (1.2); the TLA dock (4.0); and, Witch Bay beach (2.1).

Interestingly, water supposedly treated by a cartridge filtration system on Island 27, near Finlayson Park, yielded positive results for both *E. coli* and total coliforms – indicating that the filtration system was not operating correctly and suggesting a need to test the treatment system after filter replacement. Upon inspection of the system, it was determined that the cartridge had broken. Unfortunately, the opaque housing prevented inspection of the cartridge while the system was in operation.

Another system that used a 5-micron filter and UV light tested positive for low amounts of total coliform (2.1), but no *E. coli* was detected. The results could have resulted because it is difficult to decontaminate a kitchen tap. Decontaminating the system annually and installing a more-easily-sanitized filter tap would likely result in a negative test for total coliform.

The tests, while informative, were not certified laboratory tests. A test that showed no *E. coli* and no total coliform means only that the test was negative; but, there could have been problems with the test procedures utilized, etc. A positive test is more useful because it indicates that either a contamination problem occurred during testing or that *E. coli* and/or coliforms were present. This strongly suggests that the water should not be consumed without treatment.

Private (non-business) drinking water can be tested for free by the Northeastern Public Health Unit (www.timiskaminghu.com/90576/private-drinking-water). Sample bottles are available at the New Liskeard office, and water samples can be dropped off on Tuesdays during the winter months. The schedule may vary in 2026. More extensive testing is available from local laboratories for a fee (e.g., Near North Labs in North Bay).

Further information about Lake Temagami water quality can be found on the TLA website at: <https://tla-temagami.ca/environment/water-quality>.

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