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GEORGIAN BAY WATER QUALITY

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For: West Carling Association

In the spring newsletter it was suggested that members might avail themselves of the Ministry of Health water testing program to determine the status of their household water, assuming, as we know to be the case, that most of us take our water straight out of Georgian Bay, rather than from wells or a municipal source.

We took the idea seriously. From June through September we delivered test samples to the Orillia laboratory, or mailed them from Coldwater, each time we drove to Toronto. (Samples are refused if not received within 48 hours of the time they are taken.)

Here are some basic points of which we should all be aware:

1. NO surface water, which is to say water taken from lakes, rivers, streams (or Georgian Bay) should EVER be considered safe for drinking.
 - Forget appearance and remember that all water, other than from protected wells or treated sources, will have animal wastes and bacteria present.
 - Which is why the Ministry of Health usually refuses to test samples from unprotected or untreated sources.
 - Any flowing or moving water will change from moment to moment so a test taken one minute could show excellent quality while one taken five minutes later could show deadly contamination.
2. Drinking water is tested for total coliforms, which are always found in animal wastes, sewage, soil and vegetation. It is also tested for foecal coliform bacteria, which are found in the excreta of all warm blooded animals. These two tests indicate whether water is safe from a bacterial

standpoint. The Ministry of Health does not test for taste, color, chemical or other contents that might impair or affect quality.

- * ANY AMOUNT OF FAECAL COLIFORMS RENDERS WATER UNSAFE TO DRINK.
- * TOTAL COLIFORMS OVER THE RANGE 2-10x10⁶/Litre RENDERS WATER UNSAFE FOR DRINKING.

3. The range of faecal was from 0 to 6 on all samples. The range of total was from 2 to 24 on all samples. Only one sample chanced to be judged safe for drinking while one was in the 'doubtful' category. All others rated unsafe for drinking.
4. Put the other way, the tests suggested that we have a fairly good water supply with no evidence of serious sewage or other pollution at the places and at the times test samples were taken. However, Georgian Bay water should not be considered safe for drinking without some form of treatment.

WHAT TO DO ABOUT IT

One approach would be to instal an automatic chlorinator on a pressure system. Not unlike swimming pool maintenance, such a unit injects small, controlled amounts of chlorine (Javex) into the water supply as it is pumped into the system.

More practical is a series of steps that become part of cottage routine when the issue is taken seriously:

1. (Optional) Instal a 5 micron filter unit where water enters the cottage and replace the element each spring. All this does is eliminate gollywogs, gravel and little green things.

2. Boil drinking water for at least 5 minutes. Use this for ice cubes, orange juice and any other 'uncooked' cookery.
3. Instal a Sterasyl filter unit in the kitchen and use water from it for washing things like teeth, salad greens and vegetables that cook quickly. (A Sterasyl without the 5 micron filter may plug up quickly with 'gunk'. With the 5 micron the Sterasyl may need to be cleaned only once or twice in a summer. Great claims are made for the 'organism' killing abilities of Sterasyl, but the units seem not to carry any medical or government approvals.)
4. Use 5 drops or so of Javex in the dishwater or the rinse water.
5. Remember that Halazone tablets and a small container will turn swamp water into something safe to drink, but there are more tasty potables on the market!

To repeat, even before brown men and white men appeared on the great Mer Douce its clear and shining waters would have been less than safe to drink. Whether to prevent unpleasantness or eliminate the possibility of more serious illness . . . don't forget that water safety also means don't fool around with the water you take into your body.