

WLLID 2015 AGM Water Quality Report

During the summer months Wasa Lake Provincial Park beaches and other lake shore swimming sites provide an increasing number of tourists and local residents with an environment to swim and to enjoy many recreational water and beach activities. Lake testing is a proactive activity much like the annual check many of us have at the Dr. If we check out OK we leave smiling and return home happy until the next check up. If something shows up most people have it looked at and have it treated. There are others however, who wait until they get sick. The lake is also a living body and it needs its regular check up and that's what we do.

We all want the lake to provide us with good, safe water quality. When these qualities are in doubt questions arise. As you recall in June of 2012 and 2013 lake levels rose to such an elevation that flooding occurred. As a result many people shared concerns on water quality as a result of flooding and the possibility of associated health issues.

Because of these concerns and with potential flooding again in summer of 2014 as a result of a very high snow pack, two WLLID trustees met with Interior Health Authority to see if some regular lake samples could be tested for E coli. Fortunately no flooding occurred in spring 2014. Max. 2014 lake elevation was approx. 1.5 m below max. height last year.

With I.H.A's co-operation however, arrangements were made and WLLID trustees took samples for E coli testing at two week intervals in July and August, 2014 at Wasa Provincial Park's Main Beach and Campers' Beach and four other lake front risk sites where septic fields and well heads were under water during the flood years. All 20 samples at these sites came back rated as "*no water quality issues*". E coli was 18 per 100ml at one site 5 at another and less than 5 at the others. These results can be found on line at interior.health.ca under Recreational Water, Beach Water Quality

Presence of E. coli is the most appropriate indicator of fecal contamination in fresh recreational water. Recreational waters may be

contaminated with fecal material from sewage systems, animals and storm water runoff.

According to **B.C. Environmental Protection Division Water Quality**, the sample sites we tested would be considered “*primary contact recreation’ where a person would have direct contact with water over most of the body surface or where there is a substantial risk of ingestion or intimate contact with eye, ears, nose ,mouth and groin*”.

Health Canada, www.hc-sc.gc.ca has a guideline of less than or equal to 200 E.coli /100ml.of water in 5 consecutive samples in a 30 day period.

We must understand that our sampling does not meet the above requirements and WLLID does not have the authority to make public announcements about Wasa Lake water quality. IHA receives all test results and if consistent high E coli levels were reported then I H A would follow up with further investigations and appropriate announcements. We can only say that results taken during the summer of 2014 were good

Just this week I was able to make similar arrangements with Environmental Health Operations of IHA for a sample to be taken at 3 public beaches and 2 other locations for E coli every 2 weeks from mid June to late August this year.

We must recognize the support of IHA in allowing us to courier samples to Vancouver along with the provincial beach samples. That is a huge cost saving.

To date it seems that we could have a lower than average lake level this summer, but who knows.

On Going Lake Testing

Twice a month each year, between ice break up and ice return the lake is checked for clarity, oxygen levels and temperature at a site at the south end at approx... 50 ft. We use a row boat to reach the site. Clarity is recorded at the depth a secci disk disappears from site.

In February this year the WLLID purchased a new hand held Dissolved oxygen / temperature meter which is on display at the back and what a breeze it is to test now. Results are saved on the meter and can be recorded at any depth level.

At \$1,623 it was not cheap but the one we had the use of for the past 3 years was only on loan from the B C Lake Stewardship Society and had to be shared and we were not prepared to return to the old time consuming, when water samples collected, brought home, tested with chemicals, packed in ice and transported to Cranbrook Greyhound by 3:00pm the same day.

Temperature and dissolved Oxygen levels can now taken 1m below the surface and 1m from the bottom and anywhere between. Temp. and dissolved O2 levels are one indication of the health of a lake . Two tests were done just this month and the results are similar to those taken at this time over the past 15 years .To date there has not been any unusual changes that would lead us to believe that the health of the lake is deteriorating. It's all about being proactive and ahead of possible water quality issues. There has been however, a big increase in aquatic plant growth and a continued build up of the sandbars, one in the north and one at mid lake probably from beach sand that migrates south to north with the prevailing wind and wave action.

We are extremely fortunate that our lake flushes out each year as levels rise and drop on the average about 8 vertical feet. This action is important for the future health of Wasa Lake.

Thank you.

Laurie Kay

WLLID Trustee

