

WLLID Water Report
(26 April 2018)

The following reports on the various water quantity and quality measurements done by the WLLID Board during 2017.

Water Quantity

WLLID installed a well and data logger that will provide accurate geodetic data measuring the lake water level in ‘metres above sea level’ (MASL)

- 2017 high water occurred 18 – 20 June: 769.44 MASL
- The 2017 high water level had not been seen since 2013 (770.26 MASL)
- 2013 to 2016 average high water: 768.87 MASL

On June 6th, helicopter aerial video, lake water level @ 768.62 MASL
Kootenay River level (est.) @ 770.29 MASL

Historical Comparison:

The average lake water level 2013 to 2017 = 768.01 MASL

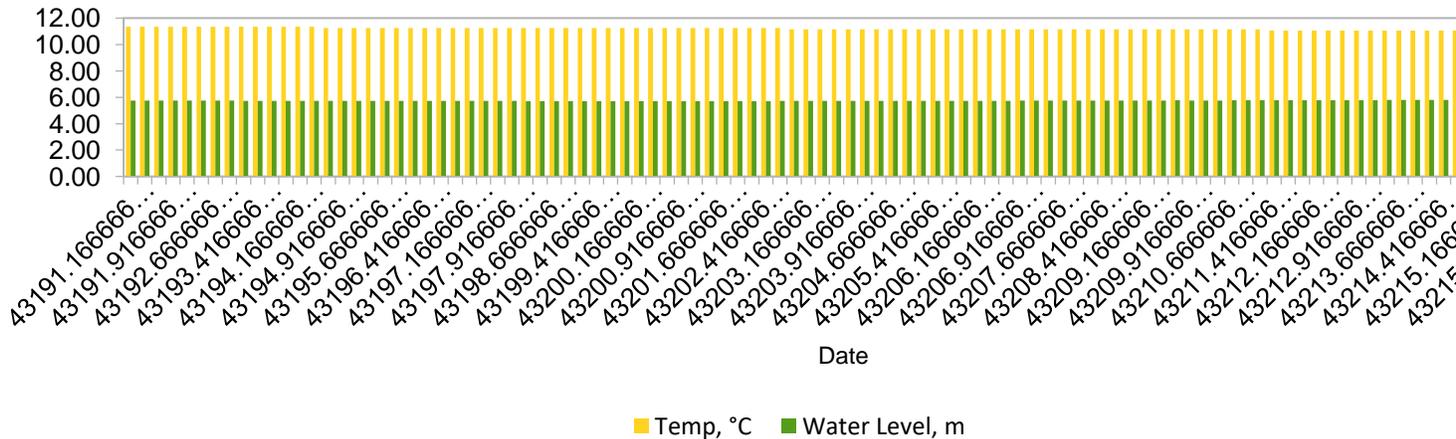
Historical average Lake level (1996 – 2006) = 767.70 MASL

All historical Lake level data (1996 – 2006) has been converted from feet to MASL

Kootenay River data (1996 – 2006) in process of being converted.

Data Logger Readings (Graph One) – water level inside the well

Data Logger - Temp & Level



Water Quality Monitoring

The WLLID undertakes a range of testing to determine the quality of water in the lake.

From May to October, WLLID volunteers take water samples from four locations around the lake. As well, monthly temperature, oxygen and Secchi depth data is collected.

E. coli

During June to August, 2017, six water samples were taken at four locations around Wasa, including Campers Beach (east mid-lake). The water samples were analyzed for E. coli by Interior Health Authority (IHA). In all cases, except one, the level of E. coli/100 ml was below IHA recommended levels and deemed “acceptable.”

The one exception in the E. coli numbers was a reading in late summer 2017 when the E. coli reached 295/100ml. This read was obtained in an area at Campers Beach where dogs are allowed to be on the beach and in the water.

The BC government standard for recreational water is less than or equal to 200 E. coli/100ml of water in five (5) samples over 30 days. When this number is exceeded, IHA would investigate, which they did in 2017 when a lake water sample spiked to 295 E. coli/100ml.

Nitrogen and Phosphorus

In August and September 2017, water samples were taken from Beachwood Road (Campers beach, Parks), Cedar Road cove, Hansen channel entrance and Abbots Bay. The samples were analyzed for nitrogen and phosphorus levels (mg/L) by ALS Environmental.

Chart One shows the nitrogen and phosphorus levels in 2017.

	Chart One	
	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)
Abbots Bay (west mid-lake)	0.390	0.0056
Hansen Channel entrance	0.331	0.0053
Cedar Rd Cove (south)	0.254	0.0034
Beach Wood Rd (east mid-lake)	0.324	0.0045

All Wasa Lake water quality data is in the process of being inputted into a spreadsheet.

Water Data Hub

WLLID has been in communication with Ben Paquette-Struger, Foundry Spatial (foundryspatial.com) about hosting the Wasa Lake water quantity and quality data.

Here is information from Foundry Spatial:

We have a process to streamline the integration of community-collected water data into the Water Portal. We have named this process WAtEr Data Exchange (WADE). We designed WADE with the intent of building an easy-to-use approach for citizen-science groups to publish a variety of hydrologic data. WADE leverages the collaboration, management, and sharing capabilities of Github (github.com<<http://github.com>>) by allowing you to effectively share your data with, not only the Water Portal, but with any other groups that you would like. You will have full control of this data repository, and will be able to continue to add new data as it is collected whenever you wish. You would be one of the first groups to benefit from sharing your data in this manner.

Foundry Spatial will house the Wasa water quantity and quality data along with providing online tools for the WLLID website. This will allow anyone to request data for the years in which it is available.

A “soft launch” of the BC Water Tool is expected before the end of May.

WLLID Board hopes to have the website option (@ wasalake.ca) available soon after the Water Tool is formally launched.