# WLTF Report to MLA Members Issue 2017-2

Mar 10, 2017

#### Posted by: Lisa Noonan

Your MLA Water Level Task Force has been keeping a close eye on precipitation and lake water levels all winter long, as well as lobbying the MNRF for needed change.

There was early and heavy snow this year, and also unusual thaws in January and February. By mid-February, snow accumulation (expressed as equivalent water content) was 44% above normal according to the MNRF. MNRF was drawing down lake levels more aggressively than last year to prepare for the higher spring melt volume expected from this snow. The lowest water level on Figures 1 and 2 [below] of lake level versus date occurred Feb 23<sup>rd</sup>; 2 weeks earlier than last year. This drawdown was reversed by significant rainfall events on Feb 25<sup>th</sup>/26<sup>th</sup> [24mm] and March 1<sup>st</sup> [21mm]. With lake levels being above "Target Level" and forecasts for more rain this past week, *last week MLA believed that members needed to be warned of the potential for flooding this Spring and issued a "High Water Alert" March 3<sup>rd</sup>. This Update, to be issued weekly, provides current information and additional detail.* 

## Figure 1 : LAKE MUSKOKA – 2016/17 WATER LEVELS [meters above gauge 02EB018 - Beaumaris]



#### Situation: Lake Muskoka

Lake Muskoka is at a gauge level of roughly 9.3m [the low end of "summer normal"]. This is 0.35m [14"] above the normal drawdown target level of 8.95m and 0.65m [25"] above the high snow target drawdown level of 8.65m. According to MNRF, average snow levels in the Muskoka River watershed are 144mm of water equivalent which is about 35% above normal for this time of year. The Muskoka River Water Management Plan [MRWMP] specifies that drawdown to the lower of the above targets should be implemented when the North Branch of the Muskoka River has snow greater than 25% above normal as of March 15<sup>th</sup>. MLA observes that this level of drawdown is unlikely to be achieved in the near term since the activation date for this trigger is less than a week away. Water is being drained through the Bala Dams at a rate of 240 m<sup>3</sup>/s, which is nearly the maximum flow that can be released without damaging downstream structures. At this rate of drawdown, flow under the train bridges at Bala Park Island is restricted and there is about a 0.30m [12"] drop from Lake Muskoka to Bala Bay.

#### Unfortunately, this means that MNRF is releasing water as fast as they can.

With water this high and high moisture content snow still in the bush, only a prolonged period of cold, dry weather will allow water levels to be lowered to target levels. A return of last year's high waters could occur should there be any rapid melt and/or significant rainfall. Lake Muskoka cottagers are advised to take precautions to protect your shoreline property in advance of Spring Freshet.

#### Situation: Lakes Rosseau and Joseph

For Lakes Rosseau and Joseph the lake level is 8.78m or about 0.15m [6"] below summer levels. While more drawdown has been achieved than last year, the current water level is 0.25m [10"] above the normal drawdown level for this time of year. For high snow levels, current lake level is 0.50m [about 20"] above target drawdown level [at March 15<sup>th</sup>]. The situation on these lakes is somewhat less precarious for three reasons: (1) snow is closer to normal levels; (2) there is still the normal 0.6m [2 ft] head difference at Port Carling so these lakes continue to drain at their normal pace [about 45 m<sup>3</sup>/s], and (3) unlike Lake Muskoka, only the immediate area drains into these lakes – not the entire 5,000 km<sup>2</sup> watershed.

Nevertheless, here too, only a long period of cool, dry weather will allow lake levels to recede to normal drawdown levels. Another incident of rapid warming and/or significant rainfall could return these lakes to last year's high levels. Here, too, *members are advised to protect their shoreline property in advance of Spring Freshet.* 

## Figure 2: LAKE ROSSEAU/JOSEPH WATER LEVELS 2016-17 [above gauge 02EB020 – Pt. Carling]



Members are encouraged to keep themselves apprised of changing water levels and how these compare to their personal waterfront structures. Please refer to previous advice on how to access current water levels on line [hot links by gauge can be accessed from the MLA website at <u>https://mla.on.ca/blog/MLA%20WLTF/Monitoring%20and%20Calculating%20Water%20Levels%2</u> <u>OYourself</u> or at <u>http://wateroffice.ec.gc.ca</u>]. If you are able to get a current measurement of your dock's height above ice, you will have your own dock elevation for reference. If not, use the normal summer levels on Figures 1 and/or 2 to guesstimate your level.

### **Summary**

How did we get in this situation again? The water levels on the lakes are managed by MNRF and water power companies in a manner prescribed in the Muskoka River Water Management Plan (MRWMP – the "rulebook" for management of water levels in Muskoka, implemented in 2006). This Plan did not contemplate Climate Change (data it was based on was from the period 1971 to 2000, and things are quite different today!); in particular, the significant winter thaws and rain on frozen ground events that are now happening more regularly. These events are precisely why MLA has begged MNRF to anticipate and mitigate by lowering the lake levels earlier and to a greater extent than was historically required.

The MRWMP was scheduled for a 10-year review in 2016. The Review was cancelled by the Province, with no new Review date planned as this is written. The MLA is pressing for an updated Plan – and we may call upon all members to vocally help us press Queens Park to get the update process started, as is so obviously needed.

The MLA Water Level Task Force has worked hard over the past year to prevent another flood this year, but the MNRF has failed to accept our proactive requests aimed at mitigating the effects of climate change on our early spring water levels.

Prepare your property for the likelihood of another year of spring flooding in Muskoka.