

WLTF Report to MLA

Members Issue 2017-4

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Very aggressive drawdown of lake levels by MNRF is producing significantly lower water levels but these levels are still higher than the required drawdown level for this time of year and snow conditions. As we near the end of March, weather systems are volatile and even the weather forecasters are challenged with predictions. Rain is predicted over the next few days posing an additional risk to the melting snow from warmer air temperatures over the next week which we expect will result in the lake levels rising again before they reach the target. Members are advised to be prepared for high water. We will update you again next week.

How we got here:

Snow started early in winter and has produced above normal snow levels in the watershed. MNRF initiated more aggressive lake lowering starting Jan 7th and had achieved a drawdown level comparable to last year by Feb 23rd, some two weeks earlier than last year. Unprecedented warmth in February and two rainfall events – Feb 24/25 and March 1 – lead to a dramatic water level increase. The water levels were then at an all-time high, compared to all records from 2002 to 2016, from March 1 to March 15. Colder, drier weather in March has allowed MNRF to lower Muskoka [at about 2cm/day] and Rosseau [at near 1 cm/day] to levels approaching this year's previous low.

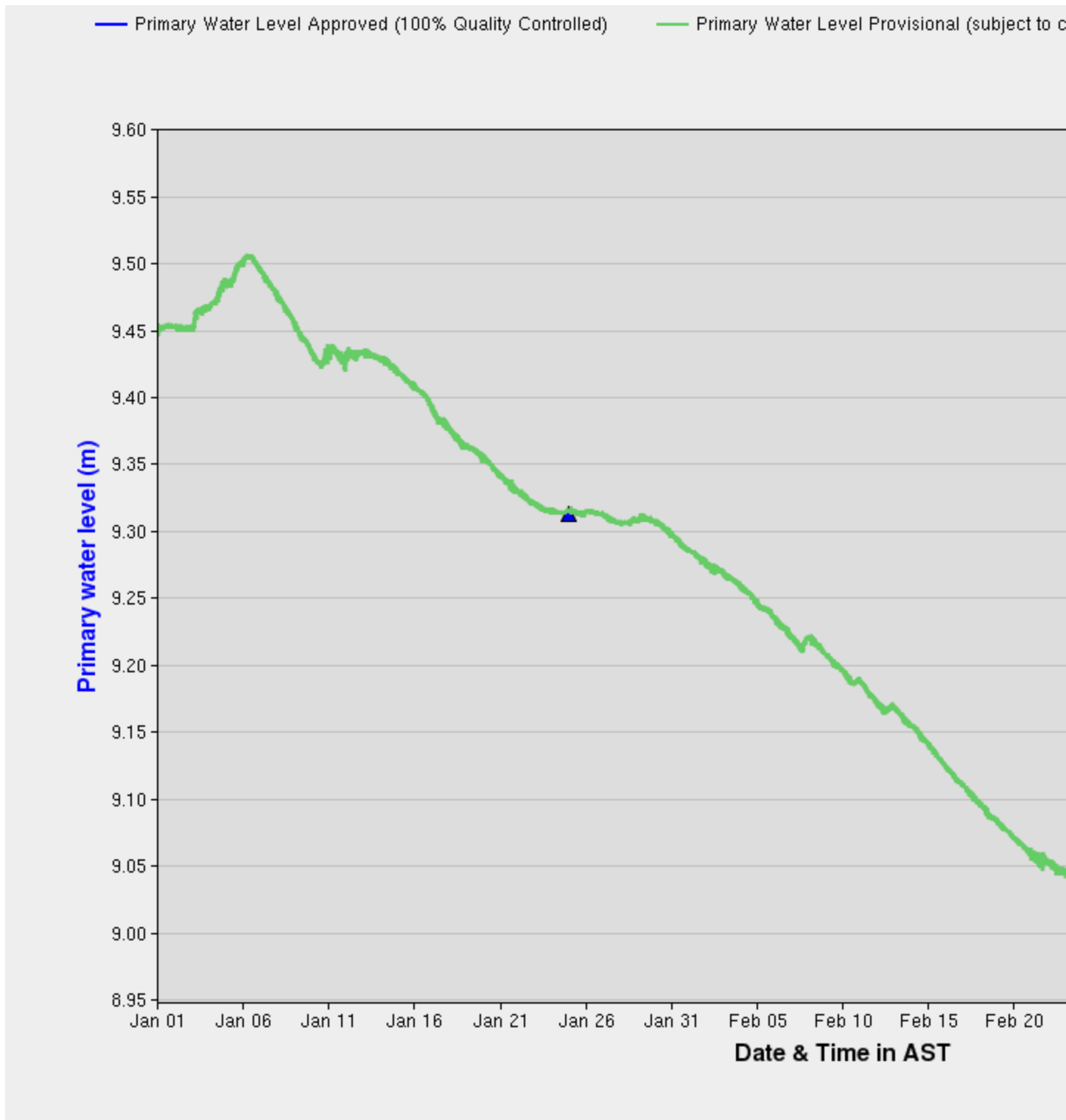
Lake Muskoka Update:

The graph below shows Lake Muskoka water levels peaked about March 12th. Since then the water level has dropped about 22 cm [8.7"]. The current level of 9.1m is 5 cm [2"] above the Feb 23rd low. This is still above normal drawdown of 8.95m by 15 cm [5.9"] for this time of year and well above the target for above average snow. Further drawdown in subsequent weeks, weather permitting of course, might allow the normal drawdown level of 8.95m to be reached in the next week. Reaching lower drawdown levels is weather dependent, is only possible if major rain is avoided and time before thawing is fast running out. Discharge through the Bala Dams remains near the highest discharge rate at Bala without risking damage to properties in the downstream Bala Reach/Moon River areas.

Property owners are advised to be prepared for high spring water.

For reference, Normal Summer levels: 9.35m to 9.65m; Normal Drawdown level 8.95m; Flood Level 10.05m on following figure.

Figure 1: LAKE MUSKOKA – 2017 WATER LEVELS [meters above gauge 02EB018]



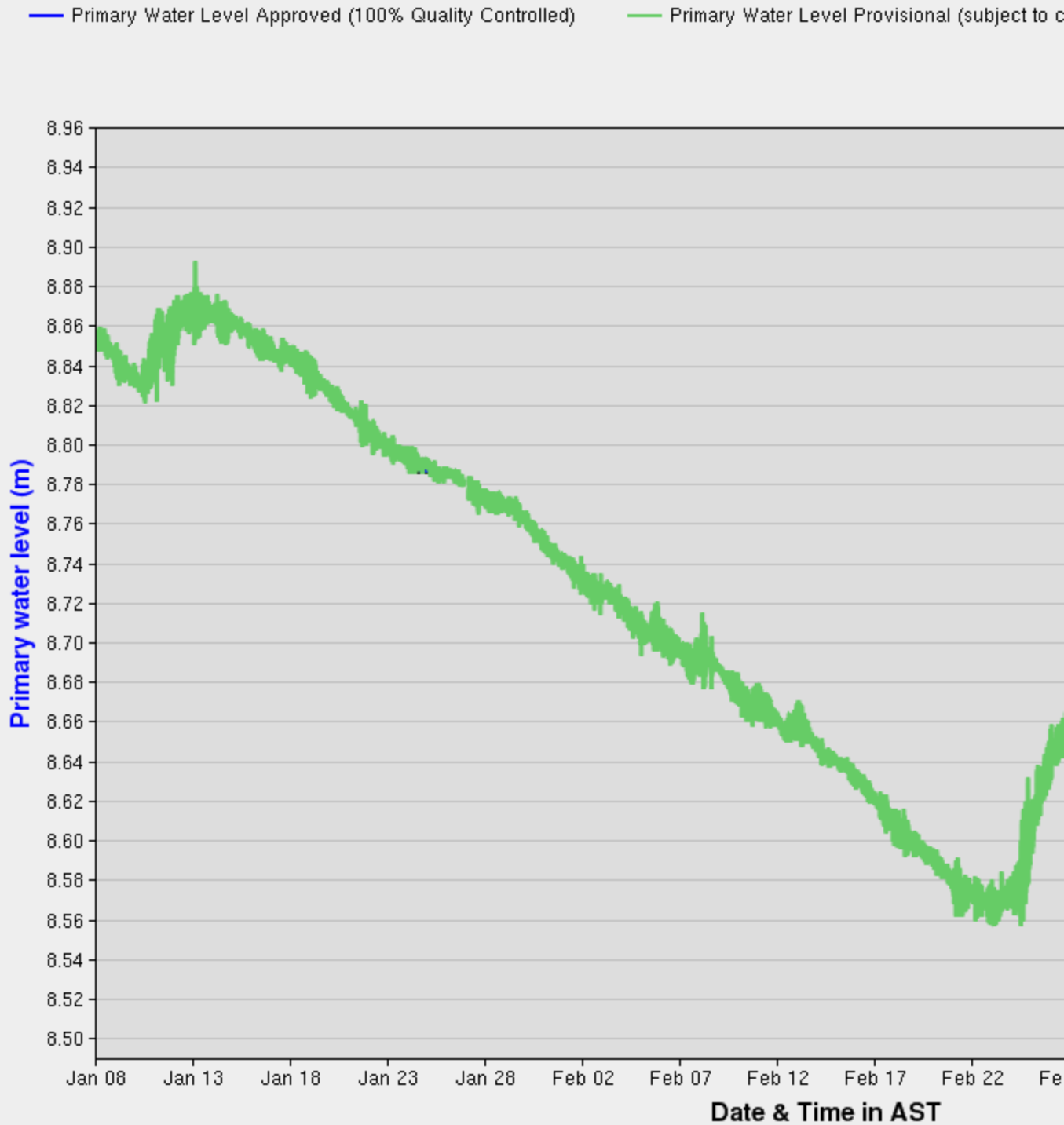
Lakes Rosseau and Joseph Update:

The graph below shows water levels for Lakes Rosseau and Joseph peaked about March 11th and have dropped about 10 cm [3.9"] since then. Water levels are now at 8.68m or about 10 cm [3.9"] above normal drawdown level of 8.58m but well above drawdown levels indicated for above average snow. The water level difference at Port Carling appears to be preserved so drainage into Lake

Muskoka is still taking place at approximately 1 cm/day. This rate, if continued over the next week, will return levels to near the normal drawdown level of 8.58m. With thawing weather fast approaching and little time left to achieve lower than normal drawdown shoreline property owners are advised to prepare for high water.

For reference, Normal Summer levels 8.88m to 9.03m; Normal Drawdown level 8.58m; Flood Level 9.28m on following figure.

Figure 2: LAKE ROSSEAU/JOSEPH WATER LEVELS 2017 [above gauge 02EB020]



Snow Core information

There is no update to the snow core data received from MNRF for March 15th which shows average snow water content was 41% above normal. Snow core information as of March 15th is used to inform MNRF whether to trigger lower than normal drawdown levels. This amount of snow water content indicates that lower than normal drawdown levels are likely needed. Additional information is

that the recent cold weather has converted much of the ground snow to ice. **Despite the high snow levels, the condition of the snow is good news as ice will be slower to melt and runoff than comparable amounts of wet snow.**

Weather Information

Over the coming week, weather is expected to be volatile and professional forecasters are hedging their predictions. Websites show the average daily temperatures are expected to hover around zero and there is 15 to 25 cm rain/ mixed precipitation predicted between Friday and Monday the 27th [per The Weather Network]. **The response of lake levels will very much depend on whether this precipitation arrives as rain, freezing rain, sleet or snow and how quickly this precipitation runs off.**

Summary

MNRF has been steadily dropping water levels over the past week. However, water levels are still higher than the normal drawdown levels for this time of year and much higher than what is required to accommodate an above average snow melt. Potential precipitation, as rain, in the next few days may trigger higher water levels. The longer that rain holds off and the more gradually that temperatures rise/ melting occurs, the more storage capacity that will be added to absorb runoff from upstream. Lake Muskoka is considered to be at more risk than the Upper Lakes as it handles all watershed freshet whereas the Upper Lakes only handle the immediate drainage area.

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 [wateroffice.ec.gc.ca]. If you are able to get a measurement of dock height above ice, you can know your own dock elevation for reference. If not, use the normal summer on our graphs to guesstimate your level.

Please prepare your property for what looks like another year of high water in Muskoka.