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Otterlake News



Fall 2016

FROM THE PRESIDENT'S DESK

For the last newsletter of the year, I would like to speak about a sensitive subject that we haven't discussed in some time now and that is water levels. There are very strong opinions for both high and low water which is why the OLLA membership voted a number of years ago to let nature takes its course. Some years we get high water and some years we get low water.

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I have received honest questions, rumours, insinuations and accusations toward OLLA about this year's water levels. Let me state categorically that OLLA has **NOT** undertaken any effort, either alone or in concert with any other party, to control or manipulate the water level. We are not associated with nor do we work with the Beaver Management Group. It has been all over the media that the RVCA has upgraded our drought status from mild to moderate to severe. This includes the entire watershed from Ottawa to Kingston and is the same for the Mississippi watershed.

At the AGM this year, our Lake Steward explained that the low water is a matter of lack of rain. It is that simple. After his explanation, there were no comments or questions raised. You can read further in his report in this newsletter.

The RVCA states that lakes like ours loose 1-2 cm. per day due to evaporation. We didn't drop that much, so I can only surmise that we had some help from an unknown number of springs helping us out. The creeks that feed our lake have all but dried up.

I had a look at some recent years rainfall reports. I looked at 2014 and compared it to this year. In 2014, from April through to August, we received 490 mm of rain. In 2016, from April through to August, we had received only 196 mm of rain. That is roughly 300 mm of rain we didn't receive. No rain equals low water levels.

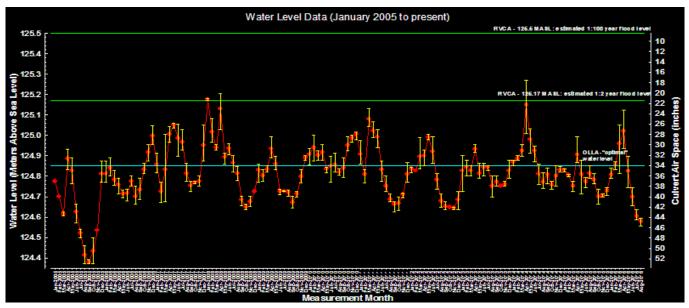
I hope that you have a safe winter and wish that the rodents don't like your place more than you do.

Randy Hodgins **OLLA President**

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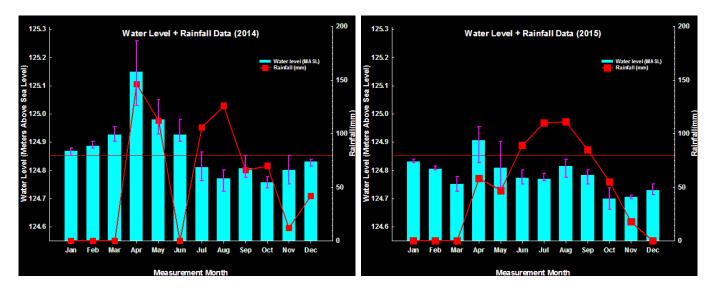
Lake Steward's Report - Water levels

As outlined in the Presidents Message low water levels have been a concern for many Otter Lake property owners this summer. Here are some of the facts relating to water levels. OLLA has accurately measured water levels since 2005. Water depth is measured several times a month at a calibrated measurement site on Road O5. The graph below shows water depth as metres above sea level and as inches of air space in



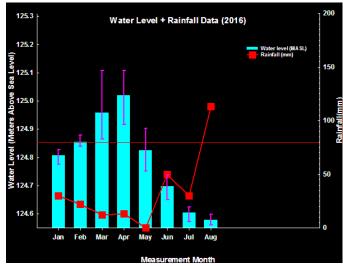
the culvert on Otter Lake Road from January 2005 to the present and clearly indicates that the water levels can fluctuate quite dramatically each year with significant highs in the spring and early summer to lows in the fall. Interestingly, 2010 was the only year in which water levels did not fluctuate much between spring and fall. The blue reference line indicates the "benchmark" water level of 34 inches proposed at the AGM in 2007 that was a level that would be acceptable to all property owners. Obviously this is an empirical water level since OLLA maintains a policy of non interference with respect to water levels. None the less it is of interest to note that the average water level over the past 10 years is in fact only one inch above the benchmark level. The two green reference lines represent RVCA's two year and 100 years estimated flood level. Note that the RVCA 2 year flood level has been exceeded twice in the past 10 years, once in the spring of 2008 and again in April 2014. The 100-year flood level has not been exceeded and probably never will. The lowest water level recorded was in September of 2005.

In addition to measuring water levels OLLA has for the past eight years also been measuring rainfall. Rainfall is measured in a high open area at a site on Road O10 using a standard rainfall gauge. Note that while Environment Canada also measures rainfall, their weather monitoring station for our area is in Kemptville. Given that summer rainfall, especially late day thunderstorms can be quite localized, rain that falls in Kemptville may not necessarily fall on Otter Lake. The graphs on following page show water levels and rainfall for Otter Lake in 2014 and 2015. Both these years were "average" in respect to rainfall and temperature. In 2014 our total rainfall was 680mm. In 2015 it was 573mm.



Rainfall was zero in January through March because our precipitation fell as snow, however was significant in both years and resulted in our spring high water level in April. While the summer months were hot there was significant rainfall throughout the summer and water levels dropped mostly as a result of evaporation loss, but not excessively since water in the lake was continually replenished.

The graph on the right shows water levels and rainfall for 2016. The total rainfall to date is only 270mm. The early winter was quite mild with more rain than snow until January. Most of the winter's snow came in February with one major snowstorm of 50cm! Mild weather in March during which most of the snow melted resulted in an early spring thaw that produced our spring high water level in April which was about the same as in 2014. Then it stopped raining! We had 50mm of rain in June, but all of it fell on one day, the day of the OLLA family picnic at Camp



Otterdale and only 30mm in July. August was slightly better with 113mm of rain but none of this rainfall was sufficient to replenish the lake was the ground was so dry. Also we had 15 days of temperatures above 30 degrees Celsius in 2016, more than three times the number of +30 degree days we had in 2015. On a +30 degree day the evaporation rate for a lake can be as high as 2.5 cm. In June RVCA issued a moderate to high drought condition advisory for the entire Rideau valley watershed. This was increased to severe in August and stated that; "There has been no rain recorded at the Ottawa Airport since July 25. Some rain has been recorded at other locations in and around the watershed but there have not been the several days of rain needed to restore the deficit that has accumulated. There is rain forecast but that is expected as thunderstorms which will not produce the needed general rain over the whole watershed. Warm weather is forecast to continue through next week which will cause losses to evaporation that will contribute significantly to the decline of water levels throughout the watershed." This

severe drought condition advisory is still in effect since September's rainfall has not been enough to alleviate the drought conditions.

So the only hope for water level recovery over the winter is mild weather with a lot of rain or a cold winter with a higher than average snowfall accumulation!!

OLLA Lake Plan Report Update

Good progress was made on the Lake Plan action items in the 2015 to 2016 period and the latest status of the action items are available in the "Otter Lake Sustainable Lake Plan: Summary of Action Items" document via the following link on the OLLA website http://www.otterlake.org/lake plan action.pdf,

please visit the site to view the status.

Priority Lake Plan "Action Items" Being Addressed by Sub-Committees in 2016

Provided below are key highlights on the priority actions items that were reported on at the 2016 AGM.

- 1. The second annual OLLA Family Day picnic was held on June 5, 2016 as a social event and to promote lake stewardship. A brief update was provided on the actions being worked on for the Lake Plan. Raffle prizes, donated by sponsors, helped to raise \$140 for the Camp Otterdale Send-A-Kid-To-Camp Fund
- 2. Watersheds Canada "Love Your Lake" survey of Otter Lake was completed and personal reports were sent to all property owners with an assessment of the condition of their shoreline and suggestions on how to improve the shoreline. Watersheds Canada also sent a summary level report to OLLA, which includes interesting statistics and will be used to inform the Lake Plan on topics to focus on.
- 3. Water quality testing has been expanded to include testing of two inflow creeks: Barker's creek and the creek between roads O6 and O7.
- 4. To facilitate the measuring, recording and communicating water levels to OLLA and RVCA, RVCA has calibrated a rock next to the Lake Stewart's dock. The top of the rock is calibrated as 124.65 MASL (Meters Above Sea Level).
- 5. An article "Invasive Species Update Prevention is the Intention" was written and issued in the February 2016 OLLA Newsletter
- 6. A presentation on Indigenous & Invasive Aquatic Plants, Algae Blooms as well as Aquatic Plant Removal was prepared and presented at the OLLA picnic on June 5, 2016.

http://otterlake.org/plants presentation.pdf

- 7. A one-page information sheet on Aquatic Plants was posted on the OLLA website http://otterlake.org/plants-_info.pdf
- 8. Registered with the FOCA Aquatic Invasive Species Prevention and Monitoring program. This program is a partnership between FOCA and the Ontario Ministry of Natural Resources and Forestry. This volunteer program helps lake associations and their members to prevent the introduction, as well as monitor for aquatic invasive species (AIS) on their water body. https://foca.on.ca/ais-monitoringprogram/
- 9. With the assistance of RVCA, a two-day survey of aquatic plants on Otter Lake was conducted on July 19 and 20. On August 8th a removal project was undertaken to remove European Frogbit, one of three invasive species found in Otter Lake. In the case of Eurasian Milfoil it is not possible to remove this species from Otter Lake due to the quantity and the fact that it is both

difficult to remove and is interspersed with the native milfoil. The purple loosestrife found around Otter Lake is a shoreline plant and as such it was not possible for us to remove it; however, landowners are encouraged to remove this plant if any is found on their property.

- 10. Posted new signs from Ontario Federation of Anglers and Hunters on invasive species at the boat launch and provided new signs to Twin Pines and Moonlight Bay for posting on their properties.
- 11. Conducted an informal survey of fish spawning areas in Otter Lake with RVCA in June 2016
- 12. A link to the Ministry of Natural Resources and Forestry (MNRF) Fish ONLINE fish identification service was posted on OLLA website
- 13. A new bulletin board was set up at the boat launch please check it out.
- 14. A field survey of septic systems around Otter Lake was performed. In terms of types of systems: 85% are Class 4 systems (tank & leaching bed); 7% are Class 4 with advanced treatment units; and 7% are Holding tanks. Based on RVCA's septic system evaluation methodology 62% of sites were scored as being of concern based on a mix of the following factors: steep slope; inadequate buffer of 15 meters and poor or thin soil.
- 15. RVCA brochures on Septic Systems were delivered to cottages, as part of the Septic System Surveys, to raise the awareness on the impact of unmaintained sewage systems.

Periodic updates on the status of the action items are made to the "Otter Lake Sustainable Lake Plan: Summary of Action Items" document on the OLLA website.

As indicated in the above status work outputs from specific action items are shared with the OLLA community through various means: website, newsletters, pamphlets, OLLA picnic and OLLA AGM.

Work is underway on the planning for the 2016/2017 Lake Plan program.

Laurence Beaulieu

Chair of the Sustainable Lake Plan Committee for Otter Lake

Social & Recreational – Dark Skies

In response to some concerns and to clarify the action items in the Lake Plan pertaining to dark skies, the intention is merely to provide educational information in the form of "did you know" facts on the impact on wildlife, types of outdoor lighting, as well as promote a good neighbour approach to intensity and direction of lighting while taking into account the need for personal safety and security. By providing this information, landowners can then choose whether or not they want to implement changes to their outdoor lighting.

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