

#32 - O10, RR1, LOMBARDY, ONTARIO, K0G 1L0

http://www.otterlake.org

Email: postmaster@otterlake.org

# FROM THE PRESIDENT'S DESK

The winter is slipping by with its high and low temperatures and not too much snow accumulation thus far, which is a great relief from last winter. Depending on what we get for the balance of the winter and the amount of spring rains, the lack of snow will result in a less severe spring runoff compared to what we saw last year.

Website:

We are sending this newsletter to all landowners on Otter Lake (members and non-members) via Canada Post, with a thought to provide some relaxed reading material highlighting what the Association has done in the past year and to bring you up to date on our plans

for the coming summer. As usual this edition will include our Lake Steward's water quality report for the past year and the results are quite impressive.

As you may recall at the last two AGMs there has been some discussion regarding the progress of our Lake Plan. This is something that we have been working towards for a number of years on and off, and we are very fortunate to have a new member Laurence Beaulieu come forward and volunteer to take on this project with some fresh new ideas. Laurence has an article in this newsletter in which he outlines his plans. He has a number of volunteers already, but we will need more for the various committees. We will also need full support of the Otter Lake community as a whole for the plan to succeed. It's completion will likely take several years. Otter Lake remains one of the best lakes in the area to live on or vacation in and we want to ensure that it continues to be so.

This leads me to our upcoming membership drive. You will also find in this newsletter a report on membership with a form for signing up to support us in our efforts to keep our lake great! I want to thank our past members for their continued support and look forward to many new property owners joining us in our efforts to pursue new projects and the continued monitoring of water quality.

Also, the Rideau Lakes Networking Group of which we are a member has some concerns regarding the new police servicing contract that the Township will have to

Winter 2015

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approve in 2015. The concerns raised are included in this Newsletter for your information.

I hope the winter is being kind to all of you. I for one am looking forward to the lazy days of summer! I expect you are too!

Philip Mayhew OLLA President

## **OLLA MEMBERSHIP**

The Otter Lake Landowners Association (OLLA) is an association of property owners whose property abuts Otter Lake. OLLA's objectives are simple and straightforward: to maintain the health of Otter Lake by working with local and regional governments, existing road associations, and individual landowners.

We have decided to distribute this Newsletter to every known property owner on the lake as a way of ensuring everyone is aware of the current activities being undertaken by OLLA members and executive. There are approximately 300 eligible cottages and homes abutting the lake, with less than 90 paid members in 2014. To increase our effectiveness we need to increase our membership.

- 1) If you are currently a member or have been in the recent past, please continue your support by completing and submitting the attached membership form.
- 2) If you are not currently a member but are interested in learning more about OLLA and how it benefits all landowners please visit our website at <u>www.otterlake.org</u>.
- 3) If you have suggestions on how OLLA can be more beneficial and relevant to you please send us an email at: <a href="mailto:postmaster@otterlake.org">postmaster@otterlake.org</a>.

According to a study conducted by the University of Maine, North American recreational lakes that are managed and protected by a strong lake or cottage association support real estate property values that are 30 to 40% higher than on similar, un-managed recreational lakes. Also, review the excellent water quality results in the Lake Steward's report to see that Otter Lake is one of the healthiest lakes in this area of eastern Ontario – work with us to keep it that way.

As we continue with the lake plan initiative, we want to ensure we have a means of communicating with as many homeowners as possible and the best way to ensure you are involved is to renew or become a member for 2015.

Ed Wilton Membership Coordinator

## LAKE STEWARD'S REPORT - 2014

Water quality testing is an important diagnostic tool to help residents of Otter Lake determine the health of the lake. We need early warnings to predict important changes in the lake's ecological process. By systematic testing and monitoring over time, it is possible to evaluate if water quality is improving or declining. By selective testing at strategic sites, water quality indicators can help determine the source or cause of contamination. The ecological and trophic status of a lake is generally determined by the levels of nutrients it contains.

As in previous years OLLA was fortunate to have the assistance of the Rideau Valley Conservation Authority (RVCA) in testing the water quality of Otter Lake. Thanks are due to Sarah MacLeod, Kaitlin Brady and their qualified team of technologists for allowing us to include their data in this report. Both RVCA and OLLA test at least 3

times per year but at different sites. The map on the right indicates the location of all the current OLLA and RVCA test sites. These sites have been chosen to be representative of the whole lake. Sites 05A, O5B and 06 represent the 3 deepest water sites (more than 90ft). Sites 04, 07, 08, 11 and 18 are in areas where there are known inflows from streams and wetlands into the lake. Other sites are in shallow bays where there is an increased tendency for weed and algae growth.

#### **NUTRIENTS & BACTERIA**

Recreational water quality can be expressed in terms of how clear the water appears. Water clarity is influenced by the amount of soil sediment and phytoplankton, or microscopic algae, present in the water. Clarity is measured by a simple visual test using a Secchi Disk, a 20 centimeter



black and white disk attached to a measured line. The disk is then lowered into the lake until it is no longer visible and the depth recorded.

Additional information on water quality is gained through analysis of samples for nutrients, specifically phosphorus and nitrogen, which gives an indication of how much nutrient and energy is available for the growth of algae and aquatic plants.

<u>Nitrogen</u> is an important and essential nutrient in aquatic ecosystems. In addition to fertilizers, agricultural waste and wastewater contribute nitrogen into lakes. In large amounts, ammonia and nitrates can be toxic to aquatic organisms. Total Kjeldahl Nitrogen (TKN) which is what we measure, determines the concentration of all forms of nitrogen in the lake. While there currently are no guidelines for acceptable levels of TKN, according to RVCA, TKN in water bodies not influenced by excessive organic inputs typically range from 100 to 500  $\mu$ g/L.

<u>Phosphorous</u> is generally recognized as the limiting nutrient in freshwater ecosystems and the major nutrient contributing to eutrophication in lakes. Since phosphorous is the principal source of energy for all living organisms the amount of phosphorous in the environment will determine how fast an organism grows and proliferates. Phosphorus is therefore the principal limiting factor in the growth of algae, meaning that algae growth will occur in greater amounts as more phosphorus is added to a lake. It should be born in mind that a conventional septic system cannot do much with phosphorous. Any phosphorous that enters a septic system from phosphorous containing detergents will emerge intact, enter the water table and eventually the lake. Phosphorus levels below 5  $\mu$ g/L are typical of **oligotrophic** lakes that generally are clear and deep with few nutrients. Such lakes are typically found in the northern regions of Ontario. Phosphorous levels above 20  $\mu$ g/L are typical of **eutrophic** lakes that are laden with nutrients which lead to excessive algae and plant growth. **Mesotrophic** lakes are in between these two extremes and are typical of the lakes found in our region of Ontario.

<u>Bacteria</u> are present in all lakes, they will be found in the faeces of the wildlife (fish, waterfowl, beavers, etc.) that inhabit the lake. Coliforms are bacteria found in the large intestine of humans and other mammals and are usually present in soil. While some strains of coliforms do produce toxins, most are not harmful to humans. Some such as *Escherichia coli* (*E. Coli*) do produce pathogenic toxins. Therefore levels of *E. Coli* are

often used as indicators of possible contamination by fecal matter. Thus high *E. Coli* levels in lakes or rivers can be an indication of septic pollution. The recommended safety level of *E. Coli* in a lake for recreational safety is not more than 100 colony-forming units (cfu) per 100ml of water. *E.coli* at any level is unacceptable for drinking water, therefore some form of treatment and purification is necessary for anyone who draws water from the lake for drinking purposes.

#### **RESULTS FOR 2014**

The table on the right indicates the results of all the water quality testing done in 2014 by OLLA and RVCA. *E. Coli* levels were low or undetectable at all sites tested except at OLLA 07 in May. Site 07 is close to Barker's Creek, the major inflow into the lake and high *E. Coli* levels at this site are not uncommon since Barker's Creek drains an extensive wetland and farming area



west of highway 15. E. coli was not detectable when site OLLA 07 was retested in June. Total Kjeldahl Nitrogen levels were generally in the acceptable range of between 200 - 500  $\mu$ g/L at all sites tested. Phosphorous levels were all between 5  $\mu$ g/L and 15  $\mu$ g/L except for a very high reading at site 04 in May which was probably an analysis error. A reading of 22  $\mu$ g/L was obtained by RVCA at site 06 in July, but this was a deep water sample and may have contained bottom sediment which would be rich in phosphorous. Secchi depth readings were generally between 4 and 7 metres indicating that the lake remains very clear. Increased water clarity means that sunlight can penetrate deeper and may often result in algae blooms over the summer months however there were no really significant algae blooms last summer. Therefore with an average phosphorous level of 10  $\mu$ g/L and an average Secchi depth of 5.5 metres the lake remains on the borderline between oligotrophic and mesotrophic. The low *E. coli* values at virtually all sites tested indicates that the overall health of the lake is excellent.

For comparison, the table on the right shows the water quality data for 2013 which is not very different from 2014 with the exception of slightly higher phosphorous levels.

Dissolved oxygen (DO) and temperature profiling is important for lakes because both parameters affect all aquatic organisms and the chemistry of the lake environment. The life cycle of many fish and other



aquatic organisms are dictated by water temperature and the amount of DO, which is why DO and temperature profiling is performed by RVCA. Also, temperature determines the concentration of DO in water so temperature and DO are always measured together. The primary source of oxygen in aquatic systems is the atmosphere with wind action constantly recharging the surface waters with oxygen. Lake water can also gain some oxygen as a byproduct of photosynthesis by algae and macrophytes. However, cold water can hold more DO than warm water. Therefore as the lake becomes thermally stratified during the warm summer months, oxygen cannot be replenished in the cold water below this warm layer known as the hyperlimnion. As a result, oxygen levels below the hyperlimnion diminish as the summer progresses. Unfortunately this is where deep cold water fish, such as lake trout live and breed.

The graphs on the right show temperature and DO measurements for the months of May to October, 2014 at OLLA 06, the deepest location in Otter Lake (35 metres or 120 ft). The graph shows how the water temperature changes during the course of the Summer months which leads to the development by July and August of an established hyperlimnion at between 10 and 15 meters. DO concentrations in mid May before



any significant temperature stratification had occurred DO levels were quite high at 12 mg/L at all depths. DO levels dropped to 9 mg/L in July but were still relatively constant irrespective of water depth. However by August, we began to see a loss of DO occurring below the hyperlimnion but DO levels were still around 7 mg/L which is acceptable for cold water fish. By October DO concentrations were still at 9 mg/L above the hyperlimnion but had dropped to 4 mg/L below it. Depending on how long this level of DO persists it would be stressful for cold water fish since it is below the 5-6 mg/L that these species require. These results are very similar to what has been seen in Otter Lake since 2011, and it therefore remains unlikely that MNR will agree to restock the lake with cold water fish. However, Otter Lake remains a suitable habitat for all warm water fish species (water temperature <25°C and dissolved oxygen >4 mg/l).

As many of you will remember, the Winter of 2013-2014 produced a lot of snow, not quite as much as the winter of 2008, but close to it. We also had some lengthy periods of very cold weather. As a result the lake was completely frozen over by December 15 and our ice sheet was very thick, up to 3 feet in some places by mid February. The water level rose somewhat in December, perhaps because the significant snowfall in late November and early December was followed by milder temperatures that melted a lot of that snow. The water level continued to rise slowly throughout the winter. If all the snow that was currently on the ground in March had melted slowly there would have been no serious flooding problems in the Spring of 2014. Unfortunately, that did not happen. With mild temperatures and 40 mm of rain in the first 2 weeks of April all the snow melted rapidly and with the ground still frozen there was nowhere for the meltwater to go except the lake. Water levels in Otter Lake in mid April were the highest they have been since OLLA started keeping records. The mid April water level even exceeded RVCA, s estimated 1:2 year flood level. Our situation was not unique since RVCA issued numerous flood warnings for the entire Rideau and Tay River Watersheds

in April and May. The graph on the right represents the water levels for all of 2014. The vertical bars represent maximum and minimum water levels recorded for each month. There was significant flooding of low lying areas and cottage access roads, especially Roads O9, O10 and O3 in April which caused concern to some property owners.

Nonetheless, Otter Creek did remain open all winter and was flowing at maximum capacity throughout April and May. The "ice off" for Otter Lake occurred on April 24. The water level in

125.1 125.2 125.1 124.9 124.8 124.7 124.7 124.7 124.7 124.7 124.7 124.7 125.17 MASL RVCA estimated 1:2 year flood level 125.1 124.9 124.9 124.9 124.9 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.9 124.7 125.1 124.8 124.7 125.1 124.8 124.7 125.1 124.8 124.7 124.7 125.1 124.8 124.7 125.1 124.8 124.7 125.1 124.8 124.7

Water Level (January - December 2014)

Otter Lake slowly dropped 20 inches since the Spring high and has been fairly stable since July, at about the same level it was last year.

Doug Franks Lake Steward

#### LAKE PLAN UPDATE

At the July 2014 OLLA AGM a request was made for volunteer assistance with the official Lake Plan. Thank you to Marcia Maxwell, Judy Hodgins, Shelly Dunlop, Karl Fiander, June Finless, Frank Croft, Dorothy Goubault and Laurence Beaulieu for offering their help in this initiative. At the OLLA Board of Directors meeting on September 28, 2014, Laurence Beaulieu volunteered to lead the coordination for the Otter Lake Plan and he will report regularly to OLLA on the progress of the Lake Plan committee. Laurence is a new Otter Lake property owner on Road O5B and has been enjoying spending time at the lake all Summer and most weekends.

Laurence (P.Eng) brings many years of experience to the role of Lake Plan Coordinator. His most notable community roles were: Kanata Lakes Community Association Land Development Planning Committee; Chairman of the Board for Christ Risen Lutheran Church; Area Coordinator for Mayor Campaigns; and Adult Section Leader for Boy Scouts of Canada. He presently serves as the Enterprise Architect at Hydro Ottawa.

Laurence's focus to date has been on reviewing background material, having discussions with various OLLA members who had been involved in previous Lake Plan activities' taking a tour of all the roads around the lake and viewing the various creeks, attending several local events and formulating an approach for the Lake Plan in preparation of the kick-off meeting (in Feb) with the people who have volunteered to be on the Lake Plan Committee.

On October 25, 2014, he attended along with other Lake Plan Committee members and members of the OLLA Board of Directors the 2014 Lake Links Workshop – Lake Communities in Action, in Perth. The workshop was a full day event that was focused on strategies for getting your lake community into action, which included sharing experiences and ideas on developing lake plans. The key message, for lake plans, was to start small, and build the lake plan in phases, as opposed to past approaches that attempted to develop an extensive lake plan from the start, many of which often failed or took many years to complete.

On January 22, committee members attended The Centre for Sustainable Watersheds' First Annual Watershed Gala - Celebrating the Future of our Freshwater, in Perth. The event featured a keynote address by Freshwater Advocate Maude Barlow, Author, Co-Founder of the Blue Planet Project, and National Chairperson of the Council for Canadians. The key message from this event was that watersheds globally, as well as here in Eastern Ontario, are in serious trouble and action is needed to protect these watersheds. At this event, The Centre for Sustainable Watersheds announced their new branding "Watersheds Canada", and their expanded focus across Canada. Laurence had a discussion with Watersheds Canada, concerning an application that had been submitted by OLLA and approved by Watersheds Canada, to perform a shoreline assessment of Otter lake in 2015. Watersheds Canada is very interested in doing such an assessment of Otter Lake and further discussions will be held to work out the planning details that are needed prior to beginning the assessment.

Laurence is looking forward to working with OLLA members and others in the Otter Lake community on developing a Lake Plan to protect and ensure the health of our lake. Watch for future progress reports. If you would like to get in touch with Laurence, or are interested in volunteering for the committee, he may be reached by cell phone at 613-297-8378 (Ottawa).

> Laurence Beaulieu Lake Plan Coordinator

#### **INCREASE IN COST OF OPP SERVICES**

Many of you will remember that at last year's AGM, Karl Flander representing the Rideau Lakes Networking Group (RLNG) of which OLLA is a member, gave a presentation regarding unfair taxation of waterfront property owners. He informed us that the OPP was changing its costing formula in 2015 and that this change would likely result in a significant increase to what the Township of Rideau Lakes will have to pay for policing services. Waterfront residents represent slightly more than half the households in the Township and 68% of the total assessment based on 2012 MPAC data.

The RLNG is opposed to the draft contract as submitted by the OPP and received by the Council of Rideau Lakes on January 26, 2015 and recommends that the Police Services Board and Council reject the OPP proposed contract until understanding and clarity can be reached about certain details of the contract. Among the concerns of the RLNG regarding the proposed OPP contract are the following:-

<u>1.</u> The \$600,000 increase in police servicing cost is unprecedented in recent history and provides no additional security or policing activity. The OPP funding formula is based on the number of households and a cost-of-service formula. Neither is supported by Rideau Lakes municipal data to support the proposed calculation. Council should ask for supporting data before accepting the formula.

2. Most of the waterfront community, serviced by private roads and valued at several hundred million dollars, receives less police attention due to the <u>local</u> OPP policy of not patrolling private roads. Nothing in the proposed contract addresses this disproportionate delivery of services. Waterfront residents are not content that they receive reduced OPP service while paying for the majority of police costs through the higher assessment they bear.

<u>3.</u> The Cost Of Service portion of the OPP contract contains a specific factor (0.38%) of the provincial total that is not supported by any data. This is allegedly the Rideau Lakes portion of the provincial total. Since this portion represents 40% of the total police cost to the municipality we urge Council to ask for documentation to support the proposed figure and link it to the 2014 Occurrence Statistics Report.

<u>4.</u> A Section 10 OPP contract is required by legislation to define enhanced services. There is no mention of the existing detachment which is an enhanced service, however there is mention of "Community Policing Locations". These items require further public discussion and definition.

5. The RLNG strongly disagrees that the costs of a Sergeant (\$200,000) and a clerk (\$80,000) should be considered as "Enhanced Services" and thus funded entirely by the Township. The responsibilities of the OPP are clearly laid out in the Police Services Act of Ontario and with the clarity that a new funding formula is supposed to bring, these should be funded as "basic services" if the OPP determines they are needed.

Regarding community funding of the Rideau Lakes Detachment and recommendations of the Police Services Board. The 2015 budget draft contains costs borne by the taxpayer to maintain the South Elmsley OPP detachment building. This is above and beyond the section 10 contract costs of policing. The RLNG has concerns about the detachment and the recommendation of the Police Services Board that the detachment needs to be maintained for adequate safety and security. Among the concerns are:

<u>1.</u> There is no evidence in the municipal budget that the overhead paid for by Rideau Lakes taxpayers is shared with other jurisdictions when the OPP services their other responsibilities outside of the scope of the Rideau Lakes contract. From the local detachment officers serve Elizabethtown-Kitley, Westport, provincial roads and federal waterways therefore the overhead costs should be shared proportionally.

2. The extreme northern location of the detachment is not convenient for residents in the south and west regions of the Township. Furthermore, the officers are not familiar with the location and naming of private roads which leads to further delays in response times.

<u>3.</u> There is no data to support the recommendation that a community-owned detachment leads to greater safety or security. What metrics are available to support the recommendation?

In summary, the RLNG is asking Council to make informed decisions about a new 3 year contract and as presented, the draft January 26<sup>th</sup> OPP contract lacks basic data to support the funding model calculation and poorly defines the enhanced services that currently exist or could exist in the future. As required by legislation, the Police Services Board should define needs in a business plan after public consultation and then ensure these needs are met in a new OPP contract prior to executing a new agreement.

The RLNG includes the following Lake Associations: Big Rideau Lake Association, Upper Rideau Lake Association, Lower Beverley Lake Association, Newboro Lake and Loon Lake Association, Otter Lake Landowners' Association

For further information, contact:- rideaulakesng@gmail.com

#### Tel 613-406-6100

If you wish to obtain further information from Council on this issue, contact Arie Hoogenboom - <u>arieathome@hotmail.com</u> or Ron Pollard - <u>pollard.ron@kingston.net</u> as council representatives on the Police Services Board. Please copy OLLA-<u>postmaster@otterlake.org</u> on any emails you send to Council representatives.



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45 O'Connor Street, Suite 900 World Exchange Plaza Ottawa, Ontario K1P 1A4

jim.noble@rbc.com

www.easternontariodocksandmarine.com





# Otter Lake Landowners' Association Membership Form 2015

This is an invitation to all landowners on Otter Lake to become members, or to renew their YEARLY membership in the Association. Your membership is important and helps to meet the cost of monitoring the water quality with the associated laboratory fees, as well as other quality–related lake issues. It also contributes to maintaining OLLA's membership in the Federation of Ontario Cottagers' Associations (FOCA) that looks after cottagers' and landowner's interests at Queens Park and the scientific Community.

Our annual membership has remained unchanged for several years and is still only \$30.-

A small price to help keep Otter Lake a viable resource for generations to come

This is a New Membership(2015)
Name(s) of Owner(s):
Mailing address:
Road and Cottage/House number, or civic number.
Telephone Numbers: at the lake:Residence
Your e-mail address:
Please send me the Newsletter by email: Yes No
Amount enclosed: \$ 30. – Please return to: Otter Lake Landowners' Association (OLLA) #32 - O10, R.R. # 1, Lombardy, ON K0G 1L0 Thank you for your support in 2015