

Saturday, October 10, 2020



Black Lake Property Owners' Association

2020 Water Quality Survey

Short Summary of Results

Background:	<p>The BLPOA Directors decided to conduct a survey of owners/members on their perceptions of Black Lake water quality issues.</p> <p>This was sent out in the beginning of September and open for two weeks.</p> <p>In the end there were 74 responses to the survey, out of over 180 email recipients at the time of the mail-out (remember, you must sign up for these emails here: http://blacklakeassociation.ca/home/contact-us/manage-your-subscriptions/).</p> <p>The results are presented in a graphical format here: https://tinyurl.com/y2lbzije.</p>
Importance of Water Quality:	<p>Water quality is very important to owners. Of the 74 respondents 70 rated water quality as 'extremely important' and the other 4 as 'somewhat important'.</p>
Perceived Changes in Water Quality in the Past Five Years	<p>Water quality seems to be staying stable or even improving. For the lake as a whole (and from a five-year perspective) half thought the water quality had stayed about the same, although of those who thought it had changed more thought it had deteriorated than improved.</p> <p>With respect to water quality specifically in front of owners' properties, over 60 per cent thought it was unchanged but of the rest again more thought it had gotten worse than better.</p> <p>Both for the lake as a whole and specifically in front of properties (and again over five years) the aspects of water quality which have gotten better are clarity and prevalence of Zebra Mussels while the aspects that have deteriorated are weed growth and algae.</p>
Awareness of RVCA Water Quality Testing	<p>Almost all respondents know the RVCA (Rideau Valley Conservation Authority) has been conducting regular water quality tests.</p> <p>The BLPOA has charted these test results and they are available on the web site here: https://tinyurl.com/y3vuu64w.</p>
Canada Geese:	<p>A slight majority have had Canada Geese on their property this year or recently. A majority knew, but many did not, that a naturalized 'riparian zone' along one's shoreline can dissuade Canada Geese from coming onto one's property and doing what geese do.</p>

Factors Perceived as Most Affecting Water Quality:

Respondents' perceptions were that run-off-related issues were the most important determinants of water quality changes The top ranked factors were thought to be surface run off from lake lots without an adequate 'riparian zone', fertilizer and herbicide run off, and seepage from inadequately maintained septic systems. These are, of course, closely related encompassing how easily and what can run off. The respondents' rankings of the factors were also close to that of the water quality experts at the RVCA (see below). The bottom line: a good riparian zone with naturalized surfaces and a functioning septic system are the things we can do to help protect our lake.

RVCA Assessment of the Ranking of Factors Most Likely to Affect Water Quality:

1. Surface runoff from lake lots without a large enough riparian zone of naturalized shoreline
2. Inadequately maintained septic systems seeping into the groundwater and then the lake
3. Reduction in adjacent wetlands
4. Hardened surfaces near the shoreline
5. Fertilizer or herbicide and pesticide runoff from lakes lots
6. Reduction in tree canopy shade for fish by the shoreline
7. Invasive species, such as zebra mussels
8. Shoreline erosion from large boat wakes to close to the shore, washing nutrients into the lake
9. Petroleum seepage from motorized watercraft
10. Runoff from more frequent heavy rains

Riparian Zones:

Most properties maintain a riparian zone of over three quarters of their lake frontage. However, of those close to the lake most do not use rain barrels to capture evestrough run off from heavy rains.

Boats and Invasive Species:

Most owners only use their watercraft on Black Lake. Of those who use them on other water bodies it is just occasionally and almost all say that they follow applicable practices to clean watercraft and avoid bringing invasive species into Black Lake.

Drinking Water Source:

Half of respondents get their drinking water from a well. Somewhat surprisingly over 40 per cent bring their drinking water from the city! Of those who get it from the lake, the largest number do nothing to treat it (good thing our lake has low e-coli!), followed by UV filtration followed by filtration (note that these responses need not be mutually exclusive and respondents could choose multiple treatments).

Only 2 respondents mentioned using a reverse osmosis treatment system, an inexpensive option for turning lake water into potable water. Such a system can be under \$350 and easily installed.

Over half of respondents reported having had their water quality tested.

Septic Systems:

There are a lot of 30 year and older septic systems on our lake. Of the 60 respondents who knew the age of their septic system, 26 had systems from the 1960s through 1980s.

Over two thirds of respondents replied 'yes' to whether they were aware of what needed doing to maintain their septic systems. Almost all knew that putting fats down the drain is bad for the septic, but fewer were aware that putting anti-bacterial agents down the sinks is also a no-no (the septic sludge is broken down by bacteria you want to keep alive!).

Most respondents reported having their septic systems cleaned every 3 to five years, with almost equal numbers at 1 to 2 years and over five years.

Septic Inspections:

Owners are aware that they can get septic systems inspected.

Three quarters of respondents were aware that one can request the *Mississippi Rideau Septic System Office* to inspect one's septic system, on a voluntary basis.

Well over half have had theirs inspected, many in the past 1 to 3 years and many more in the past 4 to 6 years.

Almost 40 per cent would consider requesting an inspection and another 45 per cent might consider it.

Next Steps for the lake association:

Identified next steps included keeping up with efforts to inform people of and encourage people to follow good practices, including getting RVCA to advise on maintaining a riparian zone.

Some comments were beyond the authority of a lake association. One possible next step could be to have owners agree to ask Tay Valley Township that the lake be added to the list of lakes with mandatory septic inspections.

- *We could ask Tay Valley Township to add Black Lake to the lakes that have mandatory septic inspections. We could encourage owners to have the Rideau Valley Conservation Authority come and advise them on how to better naturalize their shoreline.*
 - *Mandatory septic inspections, ban all boats with motors greater than 10 hp*
 - *Get rid of the Canadian Geese. Their feces is very toxic and can harm the water quality in the lake.*
 - *Pls continue doing what you are doing in raising awareness and keeping this issue in discussion. perhaps showing some (generic) photos of what a good riparian shoreline looks like, what a stripped shoreline looks like and how a stripped shoreline can be restored (to show it does not take a lots of effort) to an acceptable shoreline. A photo is worth a 1000 words. :)*
 - *Provide information regularly regarding basic stewardship protocols*
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- *Not sure*
- *Consider less slow acting blanket lawn and garden fertilizing.*
- *More spot testing for phosphorus, nitrogen and e-coli bacteria*
- *Promote environmental protocols (such as sending out this informative survey) to raise awareness.*
- *No comment*
- *move towards banning the use of fertilizers and pesticides on the lake. Move towards mandatory septic inspections. Encourage the use of phosphate rods that are inserted in the septic system to capture phosphate should the system be found to be leaching.*
- *Less pollution from boats*
- *Educate the membership on what each property owner can do to contribute to having a clean lake.*
- *Septic system review*
- *Continue awareness efforts*
- *Maintain what we are doing*
- *encourage owners to: eliminate large expanses of lawn, plant more shrubs etc. along shoreline, stop cutting down trees to improve your view, tune up boat engines*
- *I think this survey is an excellent start, to help raise awareness.*
- *Continue the great work of the Association to "Communicate to Educate"!! Promote the ribbon of life along the shoreline. Remind users that improper use of large watercraft close to shore creates erosion and damages water quality. Identify provincial and/or municipal programs supporting property naturalization. Remind people to never use soap or detergents in the lake!... and to take steps to reduce the amount of run-off from your property.*
- *Educate everyone anyone who is not a member of BLPOA and is on the lake should be made aware of what is required to maintain good water quality*
- *Keep encouraging good septic practices and shoreline protection*
- *Strongly encourage regular septic pumping and inspections. Discourage boats that have seen other water on Black Lake*
- *Education property owners about the value of mandatory inspections of all septic systems on waterfront properties.*
- *Inform owners of all the things that help with the lake water quality. Informative reminders to hopefully get everyone educated.*
- *Keep the members informed.*
- *I think we need to stay the course. One thing is that you can tell who uses fertilizers on their lawns and who does not*
- *Make a graphic image of black lake showing the areas of varying water quality. I assume when testing is done it occurs in several areas of the lake. Also depending on the available historic data, show variants of the image over time to see any progress or*

deterioration in the lake quality readings and associated areas of the lake.

- *Septic inspections are very important*
- *No public access'*
- *Education as you are doing*
- *Continue to educate owners about the best practices for maintaining clean, safe water.*
- *regular testing*
- *Do not allow public access*
- *Educate the residents*
- *inform new owners (maybe at time of sale by the realtor) about the above mentioned erosion zone.*
- *Encourage Tay Valley Township to add Black Lake to the nine lakes where septic inspections are mandatory*
- *education about how people's actions affect the water quality*

**Other
Comments:**

- *Beavers in the lake are destroying natural fauna. They should be caught and rehoused.*
- *Very happy with water quality now. Willing to do what it takes to keep our lake clean.*
- *Please continue your very fine efforts. The Lake and many cottagers thank you.*
- *Q10 is ambiguous. Q20, Q24 and Q25 apparently require an answer when they are "not applicable:.*
- *Plant three trees for everyone you cut down!*
- *Thank you for doing this, we ARE the stewards of Black Lake and it is our individual and share responsibility to protect and preserve it.*
- *These surveys are well thought out.*
- *Promote the idea that we are a community that share, not own a common resource - Black Lake. our sole responsibility should be its protection. Whether you own a million dollar property or a 3K property, it will be worth nothing if the lake is un-swimmable.*
- *Results/data from tests are the best indicator of trends and potential problems.*
- *re Septics ... frequency of inspection/clean outs is much reduced by occasional use. Both our clean outs resulted in suggested frequencies of 10 or so years because of frequency and care of input factors.*
- *we seem to have a lot of weeds float in at times that look like they have been cut. are people cutting weeds and letting them float away? How can we reduce boat wakes, especially from jet skis, that are eroding the shoreline?*
- *One of our concerns is the runoff from livestock. Up near the north end, there are several bogs/slews/swamps that contain some smelly*

nasty water, and during larger rainfalls, this stuff runs down into the lake.

- *Thanks for all the hard work Cliff et al!*
 - *Fireworks contain perchlorates as well as heavy metals such as lead, barium, strontium, copper, aluminum, cadmium, and sulfur to produce the various colours. These chemicals end up in the lake. Lead, for example, passes through the food web and accumulates to toxic concentrations, especially harmful to top predators like eagles and loons. This is a concern for drinking water coming from the lake and for those eating fish from the lake.*
 - *Information is key.*
 - *Thanks for this survey, I hope it raises general awareness and responsibility for keeping the lake clean and healthy*
 - *I think these surveys are very effective in making us think about issues that we can address.*
 - *Love the lake and its beauty*
 - *Thank you for this survey - very important step. (#25 and # 27 re septic system did not offer the option of "not applicable so "no" was answered instead)*
 - *Answers to Question 10 are more than likely based on opinion and not scientific evidence. We question the validity of those responses. We hope that the function of the BLPOA continues to be educating owners and not policing owners.*
 - *Very concerned about weed control substances on lawns. We don't like the idea of Low Wake signs at the narrows. Signs on the lake look bad and I feel the traffic will clog through the narrows if everyone slows down. And how do you tow a skier from one end to the other. Signs were posted in the past with little or no success. History speaks. Just saying!*
 - *Water quality is the key factor for the enjoyment of our cottage. Thank you for seeking our input.*
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