2021

Lake Stewards Newsletter

FOCA

Federation of Ontario Cottagers' Associations

The Changing Realities of Cottage Country

by Terry Rees

FOCA Executive Director

At the FOCA office, we routinely marvel about how little has changed over the decades, since this organization was first founded in 1963. Member surveys across the years have continued to tag 'water quality' as a top concern among waterfront property owners, and FOCA's Vision and Mission statements still reflect this focus:

OUR VISION: *thriving and sustainable waterfronts across Ontario*

OUR MISSION: *to serve and represent Ontario's lake associations, waterfront property owners (WPO) and waterfront communities through education, communication and government advocacy.*

I notice that we continue to address challenges in 2021 that are not dissimilar to those of 20 or even 50+ years ago. What has changed is our increased understanding of most of these issues and emerging examples of how these many factors, together, can impact the ecology of the province and the continued use and enjoyment of these areas, into the future.

Our lakes and inland waterways face multiple environmental stressors, from nutrient and road salt pollution, to invasive species, to climate change. Looking ahead, many of these factors are likely to intensify. Major water quality issues like blue-green algal blooms could translate into significant negative impacts on our use and enjoyment of our lakes, on property values, and on our local economies.

A Look Back

Twenty years ago, the top issues-of-the-day identified in FOCA's 2001 Lake Stewards Newsletter included all these topics, related to water quality:

- managing your shoreline
- understanding *e.coli*
- climate change impacts
- septic system re-inspections
- acid rain
- invasive species
- and a loon rescue story.

Sounds familiar, doesn't it?

As we face dynamic environmental conditions that can undermine the excellent quality of life provided by living around healthy freshwater ecosystems, we all need to double-down on our stewardship efforts.

And, as atmospheric, biological and hydrologic conditions evolve, so too does the 'people part' of cottage country. Many shoreline properties are changing hands, as people from the big wave of new cottage families in the 50s and 60s either pass down their properties, or sell them as they age or as their family situation dictates. Rising urban real estate prices, the pandemic, and the availability of improved (if still marginal) internet and cell phone access, has led to many new entrants in the waterfront community across Ontario. New full-timers along with seasonal owners are now stretching out weekends to spend more time at the 'cottage'.

The advent of a growing cottage rental market means that formerly seasonal properties are now occupied almost full-time, and the occupants are new to the community, or at least transient. We face a situation of 'shifting baselines' and changed expectations of waterfront and rural living that is unparalleled in our lifetime.

Traditional models of land and water stewardship, which includes understanding underlying conditions and engaging the community, will increasingly be challenged in the face of these changing demographics. It will continue to be in our shared best interest to keep ourselves informed, and to heed the signals that our lakes and waterways send us. In that way, we can all contribute to a thriving ecosystem for the years – and generations – ahead.

For community organizers, volunteers, and associations, so many things have changed over the past 18 months; our events, our member connections, and many of the activities and relationships that make our communities so rich and vibrant were put on hold or significantly altered.

And yet, we persevere.

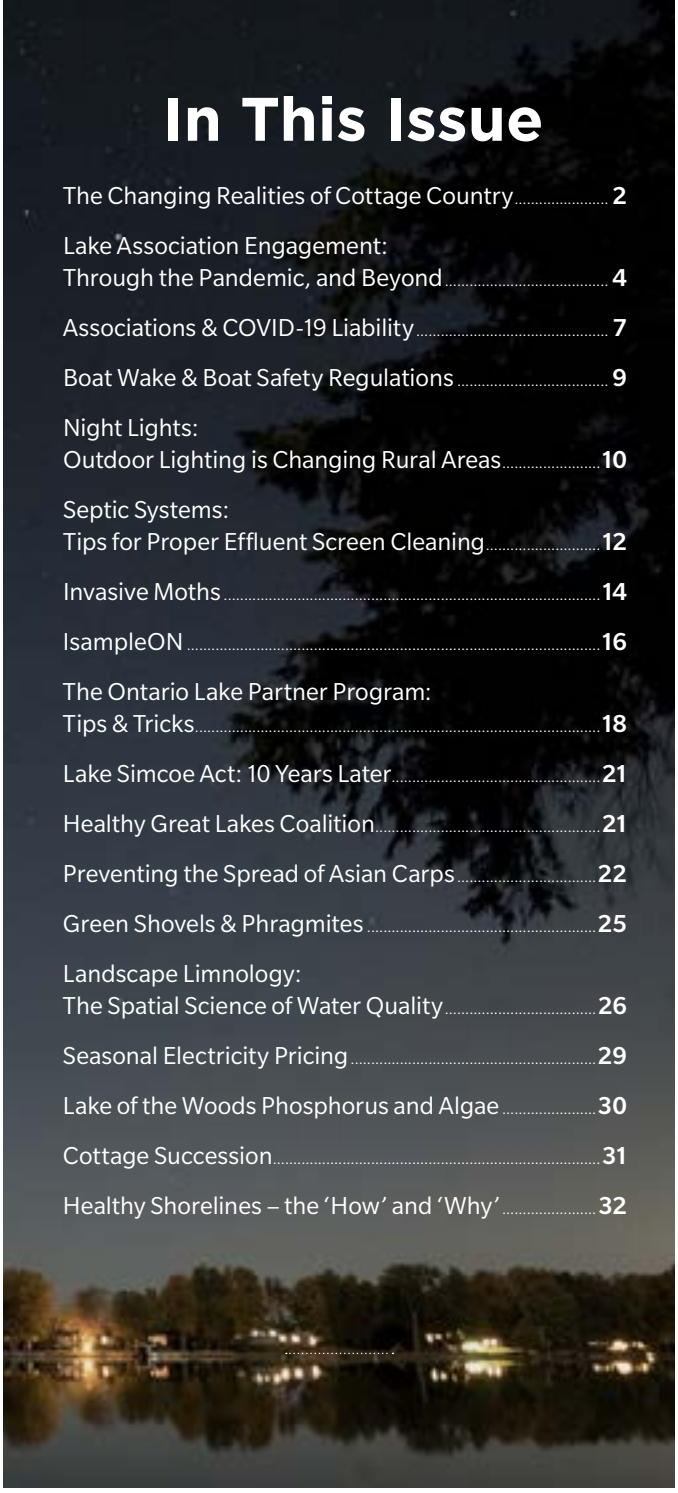
Looking ahead, FOCA will continue our dialogue with policy makers on your behalf, and will take every opportunity to weigh in on important issues, including (but not limited to) boating safety, land use planning, healthy Great Lakes, thriving rural communities, and of course the protection of our precious waters and watersheds.

We take your comments to heart about the information you need, how you like to receive it, and how we can serve you better – and we hope our member offerings reflect this.

Thank you to everyone who has provided their ideas, their energy, their insights and of course your financial support to this organization, as members and supporters. Thank you also to our dedicated volunteers, especially our Board of Directors and committee chairs that support this organization, and to the staff who are so very diligent and skilled and thoughtful in serving our member associations.

I wish everyone the best for your health, and for your extended lake families and friends. I encourage you to continue to support our rural communities and to make the most of our changing world, and the waterfronts that sustain us.

In This Issue



2021 FOCA FALL SEMINAR

"The Changing Face of Cottage Country" webinar

Sat., Nov. 6, 2021

Register today:
https://foca.on.ca/fall-seminar-2021/

Lake Association Engagement:
Through the Pandemic, and Beyond

by Michelle Lewin
FOCA Communications Coordinator

Lake association activities usually involve lots of people, lots of fun, and lots of community spirit.

Of course, every association is different: some are large, some are small, and they have varying levels of local engagement. Some groups have lots of volunteers, while others have only a few. Wherever your association falls on the spectrum, you do what you can with the resources you have at hand.

So what are some ways to help your lake association thrive?

We know from the results of FOCA's 2020 member survey that, among the groups who said their membership was "up" over the previous year, their top listed concern was *"Membership recruiting, retention or engagement."* Number one! It even beat out water quality, but just by a smidge.

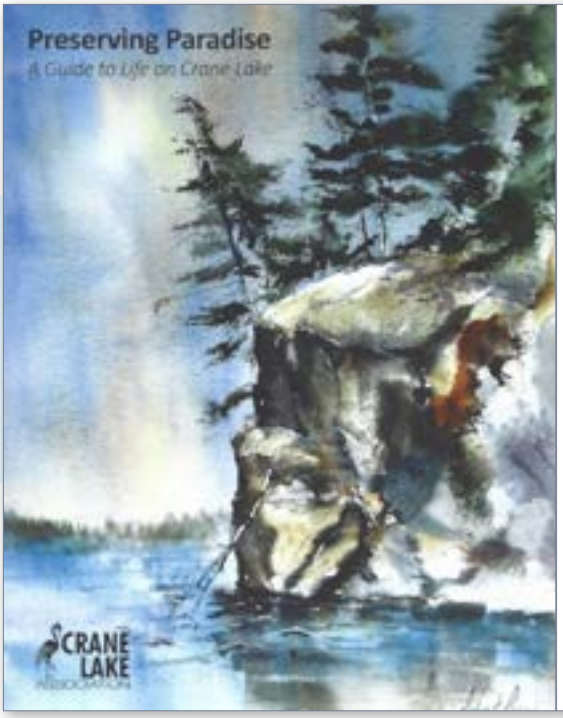
If you are looking for new activities that can increase engagement for your association, check out the resources on FOCA's Association toolkit webpage, especially the *Menu of Engagement Activities.* It provides a list of ideas that have all been 'test-driven' by your fellow FOCA association members, in areas such as advocacy and outreach, communications, events, and more. Find it and other important resources, here: https://foca.on.ca/toolkit-overview/.

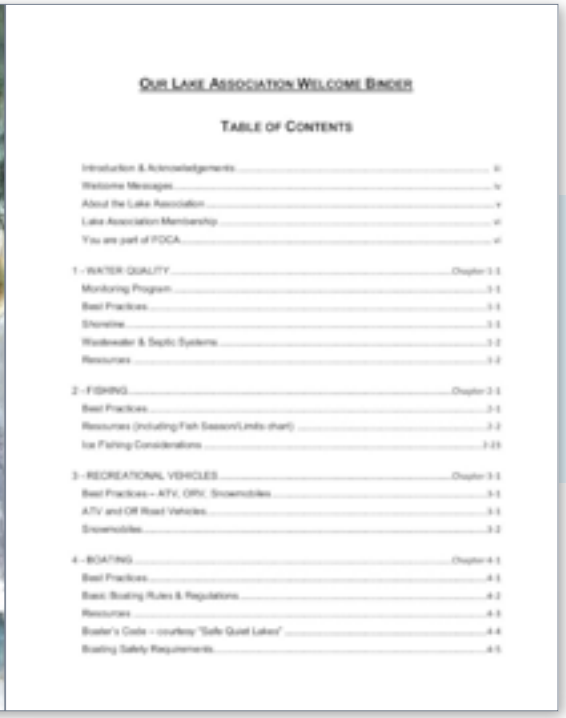
We know that the pandemic had many negative impacts on our member associations, not the least of which was the inability of our American neighbours who would normally spend their summers at an Ontario lake home, to cross the border over the past year and a half. However, FOCA also heard some positive anecdotes, such as that cottage time had become more cherished than ever before, and that the impact of world events actually brought family or community closer together.

In 2020 our member groups adjusted to physical distancing requirements by trading picnics and regattas for virtual scavenger hunts and fishing derbies, or boat parades and music-on-the-water events that were both safe and fun. And the rest: well, it probably happened on Zoom.

Throughout this challenging time, cottage country has been popular beyond belief. In early 2021, CTV network reported that a survey found Ontario boat and yacht dealers saw a 26% increase in sales and a 17% increase in rentals and leases of boats, over the previous year.

Unfortunately, our colleagues at the Marine Division of the Ontario Provincial Police (OPP) told us there were also more charges laid in 2020 and more fatalities, particularly in the 'shoulder' seasons (before June 15th and after September 15th) when 18 deaths were recorded, up 58% over the previous year. According to the OPP, calls in the 2020 season revolved around personal watercraft, aggressive operation (high speed or restricted zones), liquor offences, driver inexperience and courtesy issues such as noise and wake impacts.





OUR LAKE ASSOCIATION WELCOME BINDER

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The 'Welcome Binder' template was graciously provided by the Crane Lake Association!

And then there was the real estate market in cottage country over the past year: "dramatic" hardly begins to cover it. Statistics compiled by the Lakelands Association of Realtors, as one example, confirm that real estate sales were up significantly throughout 2020 and into 2021, both in terms of volume, and prices. They reported that, despite losing the spring market due to the first wave of COVID-19, the median price for waterfront property sales for Haliburton by December 2020 was a record $750,888 representing a 51.1% increase over the same time in the previous year.

What does all this mean?

We know there are new folks in cottage country this year, and some of them bought their property over the winter, sight-unseen. Many of them are having their first cottage country experience and are just learning about living on a septic system, or may be thinking about bringing urban landscaping practices with them to the lake. We anticipate lots more calls to the FOCA office, along these lines:

"We just bought the cottage of our dreams! Now all we need to do is get the trees out of the way, put in a lawn, dredge the 'swamp' and remove all the in-water plants so we can have a sandy beach and get our new wakeboat in and out..."

OK, I made that one up. But still, education is going to be key this year, and moving forward. Welcoming our new neighbours and providing them with important information about the lake ecology, lake etiquette, and your local lake association will help them get the most out of their lake experience in the the long term!

What's the big picture?

At FOCA we've been pondering:

- What do we want these new cottagers to know?
- How will we welcome them, and help to shepherd their entry into the community and to understanding the special considerations of living at the waterfront?

FOCA has created a webpage that has become the landing page for our outreach campaigns this year, as we work to reach these new members of the waterfront community. Here you'll find video resources, links and handy information to circulate: https://foca.on.ca/cottage/. Please share these resources!

Additionally, your association might consider creating a *Welcome Package* with some fun information about the region, handy local tips and contacts for questions about garbage, bylaws or other common issues. Luckily, you don't have to re-invent the wheel on this one. FOCA has a short 1-page or 2-page template, as well as a full *Welcome Binder* example that we can share with our member associations.

We also have lots of publications, like the *Shoreline Owner's Guide to Healthy Waterfronts*, that you can make available to new property owners. All our educational brochures and many of our video resources can be found from this starting point: https://foca.on.ca/news/publications/, or contact the FOCA office for assistance.

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The Big Picture

Personally, I was inspired by a handful of spectacular webinars I attended this year, that have provided additional context about the year-that-was, and how we will move forward successfully from this point.

The first was a Sustainability Network event, *COVID, Canadians and the Environment* which provided results from a 2020 EcoAnalytics survey (conducted in stages, before and during the pandemic) that confirmed Canadians generally remained highly concerned about the environment through this period that has otherwise been consumed with health concerns.

In fact, their results suggested, the pandemic actually increased our belief in the value of nature.

It also created what the study authors referred to as "a new sense of efficacy" – that feeling that our actions really can make a difference. We learned this past year that the slow wheels of change really can move quickly at times; a vaccine that would previously have taken decades to reach the public is already in circulation, worldwide.

Apply for the FOCA Achievement Award

FOCA encourages you to share your association success story by applying for the FOCA Achievement Award.

The Award is presented to a FOCA member Association each year, at the discretion of the FOCA Board of Directors. Large or small associations have received the Award over the years. Accomplishments should be current, but can include long-standing efforts. Nominations can be submitted until November 30th, and the Award recipient will be announced at FOCA's Annual General Meeting in March 2022.

Review the criteria and download the nomination form here: https://foca.on.ca/foca-achievement-award/.

The second webinar that spoke deeply to me was part of the spectacular 5-part *Troubled Waters Forum*, which FOCA was proud to co-host earlier this year, with the Greater Sudbury Watershed Alliance and the Vale Living with Lakes Centre.

The powerhouse final speaker was Dr. John Smol, whose talk was *The Power of the Past* (how science informs our understanding of climatic changes), yet he carved out time to provide some essential inspiration for the future, as we approached the one-year mark of the pandemic. In Dr. Smol's wise words, *"the environment is not a 'cost' - it is an investment."*

Also he challenged us all to affect change, with our ACTIONS, with our WALLETS, and with our VOTES. You can watch this webinar and the inspiring others in the series, here: https://foca.on.ca/troubled-waters-webinar-series/.

We now have an historic opportunity to deliberately choose to do things differently, going forward. Governments are going to be under huge pressure to prioritize investments in jobs, the economy, and enhancing public health and long-term care. As citizens we will need to be vocal to also keep the air, the water and nature on their radar.

I also challenge you to support your rural community in the coming seasons, and to inspire others at your waterfront to do the same.

As always, please keep us updated about your challenges and your successes! #LoveHearingYourStories

Associations & COVID-19 Liability

by Ross Fraser

Cade Associates Insurance Brokers

This information was provided to members at the Spring 2021 FOCA Seminar for Lake Associations. This summary is presented for general information only and is not intended to provide legal or insurance advice or opinions of any kind. For information about your specific insurance needs, please contact your Insurance Broker.

Due to the pandemic, a 'contagious disease exclusion' was applied to many insurance policies, meaning there is no liability coverage if someone sued your association, alleging that your event or other operations caused them to contract COVID-19 or other contagious diseases.

However, Ontario's *Bill 218 – Supporting Ontario's Recovery and Municipal Elections Act*, included some protection from liability due to COVID-19. Under the Act, legal action will be barred from the court if it is based "directly or indirectly" on an individual being potentially infected with or exposed to COVID-19, as long as the organization (e.g., your lake association) made a good faith effort to act in accordance with public health guidance and laws.

This means: Associations should stay updated on public health guidance and laws in your respective regions, and ensure your programming is in keeping with federal, provincial, and municipal health guidance. This is especially critical as the province moves through stages of re-opening which may be different across regions.

The standard to be met when considering your operations is that of honest, good faith attempts to follow the public health guidance and all laws. With Bill 218, Associations may begin planning with some peace of mind. To review the full Bill, visit: https://www.ola.org/en/legislative-business/bills/parliament-42/session-1/bill-218. For all your insurance questions, connect with Cade Associates: clientservices@cadeinsurance.com or 1-844-223-3178

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Reminder: those Associations who have liability insurance under the FOCA Liability Program administered by Cade Associates Insurance Brokers, receive unlimited access to a **Legal Helpline** at no additional cost. Contact the FOCA office for details on how to access this member benefit: info@foca.on.ca

A NEW START

BEAVER HOMES & COTTAGES

As a cottage owner, you know the amazing feeling of opening weekend and the promise it holds for another remarkable season. The same feeling can fade quickly as you realize the cottage you once loved is now tarnished, dated and in need of many costly repairs. Perhaps the cottage is too small for your growing family, or inadequate for your picture-perfect retirement.

Either way, you will need to make a decision. Do you renovate and add on? Sell and buy new? Tear down and build from scratch? These are not easy choices, especially if you have a longstanding relationship and many treasured memories at your cottage.

At Home Hardware Building Centre, we want to be part of the conversation and help you discover what is best for you and your family.

For over 50 years, the Beaver Homes & Cottages program has helped aspiring and practiced cottagers alike realize their dreams and potential in home building. Schedule a no obligation consultation. Our expert staff will be ready to answer all of your questions.

Home building centre

Home hardware building centre

To speak to the dealer closest to you and for more information, visit **beaverhomesandcottages.ca**

Here's How.

Boat Wake:
You Asked

FOCA has had a number of questions from members recently about boat wakes, so we went to Sgt. Dave Moffatt, the Marine Coordinator of the Ontario Provincial Police, for answers.

The Question

Is there anything in the law that regulates boat wake? (i.e., what do I do about an unsafe or damaging boat wake issue?)

Sgt. Moffatt's Answer

The Canada Shipping Act 2001 is a federal act that regulates vessel operations on the water. That being said, it is about the operation of the vessel, and not about the wake it leaves behind. There is no offence for producing a large wake; however, vessel operators should be aware that they are civilly responsible for any damages that wake can cause.

If you witness a vessel that you believe is unsafe or needs some OPP attention, then call 911 if it's an emergency or 1-888-310-1122 if it's a non-emergency. To assist in the investigation, it is always helpful if there is an accurate description of vessel and operator – make a few notes of what you remember at the time so you don't forget important information when speaking to the officer. Video evidence is always helpful as well.

Be #WakeAware

In July 2021 FOCA, in collaboration with the Muskoka Lakes Association (MLA) and Safe Quiet Lakes (SQL) launched a #WakeAware campaign website and short video about the impacts of boat wake, and what each of us should do to be aware of wake and to limit its effects.

This important 1-minute video message encourages responsible and considerate use of our waterways, for the safety of all waterfront users, and to preserve our fragile shorelines. Learn more, and please share the news widely!

Access the video and related resources, here: https://www.bewakeaware.com/.

Boater Safety Regulations

In late 2020, FOCA had commented to Transport Canada (TC, the regulatory body who has their rules enforced in Ontario by OPP Marine unit) on proposed changes that would no longer recognize the *Rental Boat Safety Checklist* (RBSC) as a form of proof of operator competency. FOCA and others submitted that a simple checklist did not suffice to ensure a renter was adequately prepared to safely operate a rental boat, and that the *Pleasure Craft Operators Card (PCOC)* should be the minimum standard.

Recognizing the ongoing concern about rental boat safety and renter competency, TC consultations were held via *Let's Talk Transportation*, between November 12, 2020 and January 15, 2021. As a result of comments received, TC determined they will NOT be rescinding the RBSC. However, a revised proposal is that anyone renting a PWC (personal watercraft) under the age of 25 must have a PCOC and cannot simply use the RBSC, but if supervised by someone 25 or older they can use the RBSC. There is currently no word of further details, or when these amendments would be officially posted. Stay tuned to FOCA's webpage for updates: https://foca.on.ca/safe-boating/.

Individual complaints or concerns about safety should continue to be directed to your local OPP detachment. Search: https://www.opp.ca/index.php?id=119

Night Lights

Outdoor Lighting is Changing Rural Areas

by Dr. Robert Dick

The attractions of cottage country include green and blue vistas during the day, and the soundscapes and starry skies of late evening. But the latter attraction is quickly changing, and the culprit is a "green" lighting technology. I refer to the proliferation of white-light LED fixtures. They are marketed as low energy and cheap; however, these attributes promote outdoor lighting where previously there was none. LED fixtures consume so little energy compared to the older incandescent lights that many cottagers leave them on all night and even when their cottage is vacant.

What was once a dark countryside has now become illuminated as an extension of urban lighting patterns shifts across the landscape. For example, compare these two satellite images of light proliferation in Lanark County, Eastern Ontario over a few short years. The dark areas are being overtaken by roadway and residential lighting. Something modest becomes a blight when multiplied by thousands of residences.

It is ironic that a product developed to save energy and preserve the environment is having the opposite effect: LEDs are causing a 2.2% per year increase in outdoor lighting! Within your lifetime, the sky will be twice as bright, and we will be using twice the energy for lighting.

Why does this matter? How can something as simple as a door light affect the night?

First, outdoor lighting fundamentally changes the aesthetics of the night. The night sky is featureless "black" when we are next to bright lights. It reduces the visibility for both people and animals.

Many animals don't want outdoor lighting. It makes foraging animals vulnerable to predators. Although moonlight illuminates the countryside for about a week each month, the rest of the time there are long periods of darkness when the animals can gather food in relative safety, and star gazers and late-night walkers can enjoy the night darkness, free from glare.

The proliferation of light is caused by outdoor lights on buildings, along laneways and shoreline lighting. Whether used for landscaping or waterfront "enhancement", outdoor lighting changes the night environment and disrupts the ecology of wildlife. It also undermines the enjoyment for those who may prefer the natural night they can't get in the city.

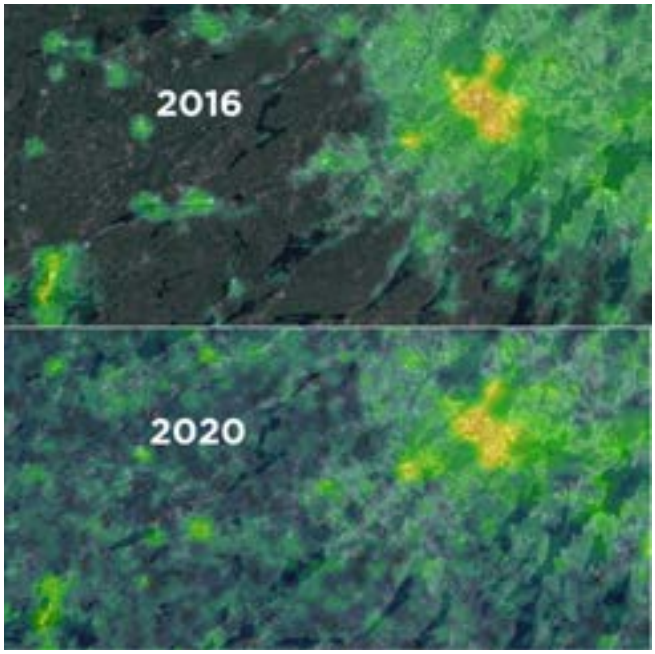
Practical Solutions

1. Changing White to Amber:

White is the most impactful colour of nighttime lighting. The glare from white light appears about 5 times brighter than amber light for the same wattage of lamp. Since bugs are not attracted as much by amber light, you will also reduce the pesky bugs on your property. Simply swapping out the white lamp for an amber bug light will reduce the impact of the glare.

For LEDs, white light is the combination of blue plus amber. So, you can add a filter to block the blue light components. Inexpensive amber film can be used to line the inside of light fixtures such as coach lights. At the relatively low light levels after dark, our eyes perceive this colour as candlelight.

You can buy a very inexpensive sheet of filter material by Roscolux (Deep Straw #15) online for less than $10. Line the inside of the light fixture window or diffuser with one or two layers to achieve amber light.



Lanark County satellite images from www.LightPollutionMap.info

2. Shielding Exterior Building Lights

An unshielded door light can be seen for miles, yet only a fraction of the emitted light will illuminate your entrance or steps. The problem is solved by purchasing downward facing fixtures, or creating a simple DIY reflective shield. If you use the pattern found at http://csbg.ca/BLOG.HTM#22, this project is suitable for your kids or grandkids. Important notes:

- Use this only for florescent or LED light bulbs (not incandescent or other bulbs that get hot when lit).
- If the bulb uses more than 60W, the material used should be metal, not cardboard.

3. Modifying a Coach Light

Coach lights are designed to look good in the daytime, but at night they produce a lot of glare and light trespass. Depending on the specific design, these can be modified to produce very little glare and to more uniformly light the area, which increases the visibility over the area.

As an example: visit https://foca.on.ca/light-pollution/ to see images of a typical fixture that has the lamp in the lower half, and the light shines out through glass in the upper and lower sections. We modified it by using a screw-in plug receptacle from a local hardware store that raised the lamp into the upper section. We then cut reflective material to block the upper windows. More light is now reflected through the lower windows and onto the ground. The owner can use lower wattage lamps. During the day, the fixture did not look like it was modified but at night this modest shielding cut glare and light trespass, while increasing visibility around the entrance.

How you can help

Light pollution can be easily reduced with some simple solutions:

1. Shield your light fixtures so light shines where you need it, not over your neighbour's property. Everyone will see better without the glare.
2. Use amber "bug lights" – not white light. Amber will reduce the impact of glare and will also attract fewer mosquitoes.
3. Use lower wattage lamps. To judge how much light you need, go for a walk at night and approach your lights after becoming dark-adapted. This will be what the animals see. If your lights are bright, dim them down or use a lower wattage bulb.
4. Turn off your outdoor lights when you don't want to have visitors, when you go to bed, and certainly when you are away. We've been told to use light to make our homes safer, but without an active security system, outdoor lighting won't protect your property, it just puts it on display for thieves and vandals.

To read up on more lighting tricks, the colour of light and illumination levels, visit my blog: www.csbg.ca/truths-myths.htm

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About the author: Robert Dick is a principal in the Canadian light company CSbG EcoLights. He wrote the original chapter on light pollution in FOCA's 2009 publication, "Take the Plunge."

One Municipal Example

Worried about the impacts of light pollution in your area?

You might bring this example to the attention of your municipality: the Township of Muskoka Lakes has had a dark sky lighting bylaw in place since 2014, intended to *"ensure responsible lighting, light pollution mitigation and conservation of the dark sky environment."*

As of January 1, 2024, residents will be responsible for ensuring their property is dark-sky compliant, including the provision that all outdoor lighting—even on docks and boathouses—be "properly shielded with full cut-off fixtures" that only shine below the horizontal line of the shield, not outward or upwards.

Septic Systems:
Tips for Proper Effluent Screen Cleaning

by Dr. Sara Heger

Reproduced with permission from www.onsiteinstaller.com

An effluent screen requires regular maintenance and must be periodically checked. The need to clean a screen should not be considered an indication of a problem since the purpose of a screen is to catch suspended solids.

As a concern for the homeowner's safety in dealing with the components of a septic system, it is recommended that a certified inspector or septic tank pumper/maintainer or service provider provide this maintenance, but some property owners might clean their own screen. The screen must be periodically removed from the tank, and the solids that have been trapped and attached to the screen must be washed back into the septic tank.

For this reason, it is more appropriate to have this maintenance done when the septic tank is being pumped so those solids can be removed, but the filter may need to be cleaned more frequently than the tank is cleaned, and therefore, it must be done properly.

In most cases, the effluent screen is cleaned when the tank is pumped, but it should be inspected at a frequency of at least every six months to two years, depending on the filter and use of the system.

Factors that can increase the frequency of maintenance include:

- High content of fats, oil and grease
- Presence of hair or laundry lint
- Presence of excessive solids through use of a garbage disposal or excessive toilet paper
- High water usage and peak flows
- Number of people in the home
- Size of the septic tank and effluent screen.

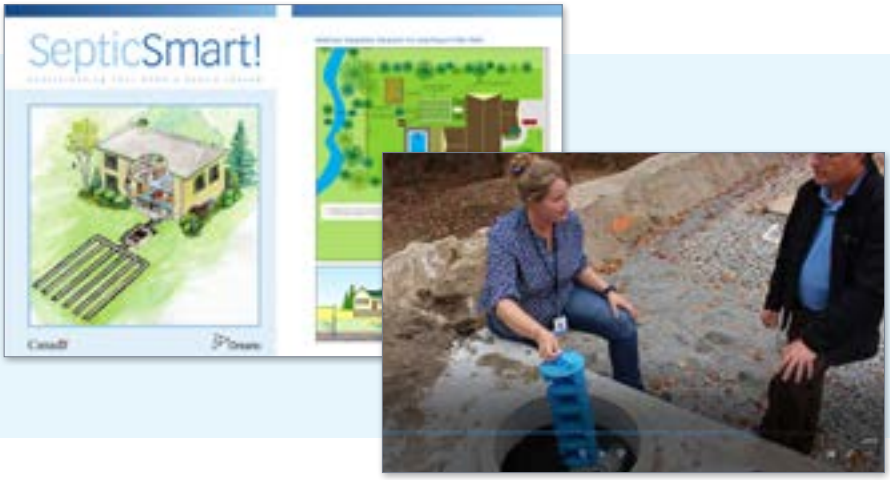
Effluent screen cleaning procedure

1. Do not enter the septic tank for any reason. Noxious gases exist in septic tanks and can result in serious injury or death. You do not need to enter the tank in order to clean the screen. If the tank is deep, the effluent screen should have a handle on it to remove the screen without placing your head below the top of the tank maintenance hole.

2. Put on waterproof, disposable gloves and safety glasses. The effluent screen should be located below a large-diameter access (20 inches), but it is possible only a 6-inch access exists. Remove the maintenance hole cover of the septic tank and note the liquid level in the tank.

   The liquid level should be at the bottom of the outlet pipe. If it is below the outlet pipe, this is a sign that the tank is not watertight and you will have to troubleshoot the problem. If the liquid level is above the outlet pipe or the effluent screen, do not remove the screen. This is a sign of problems somewhere in the system: a plugged screen, pump failure, plugged soil treatment area, etc.

   Pump the tank before removing the screen. This will prevent a surge of excess effluent, containing unwanted solids, from moving into the next component of the treatment system.



FOCA is on the Committee currently working to update the SepticSmart brochure for homeowners.

For more about septic system parts, maintenance and signs of trouble, watch FOCA's video from a cottage country septic installation inspection: https://youtu.be/5VeTGVnkYA4

3. If the liquid level is at the bottom of the outlet pipe, carefully remove the screen from its casing to prevent collected solids from falling off the screen. (Some screens have a secondary device to prevent solids bypass.) Note the condition of the screen and the extent of buildup, as this will impact the frequency of cleaning needed. Using a garden hose, spray off the screen over the first septic tank maintenance hole or place the screen in a 5-gallon bucket and spray off all material into the bucket. Be careful to prevent splashing onto your body or clothes or into the yard. Do not clean the effluent screen in the grass next to the septic tank; raw sewage in the yard is a public health hazard. Never allow the screen cleanings to be left on the ground.

4. Return the screen to its casing once it has been cleaned. Dump the contents of the bucket into the septic tank and add a small amount of bleach and rinse the bucket several times (emptying the rinse water into the septic tank each time.) Secure the maintenance hole cover once you are finished. The solids from the screen cleaning will settle and get removed the next time the tank is pumped during routine maintenance. Make sure the screen is reinstalled correctly to ensure proper operation.

5. Once the job is complete, dispose of the gloves and wash your hands thoroughly with soap and hot water. If your clothes were contaminated, remove them immediately and launder in hot water.

If there is premature clogging (less than six months), it may be an indicator of problems such as:

- Excessive chemical usage
- Reduced detention time due to excessive flows
- Neglecting to pump out the septic tank as needed
- Excessive flushing of grease or oil down the kitchen drain
- Use of a garbage disposal
- Excessive toilet paper use, along with disposal of other sanitary products not advisable for flushing.

If a screen requires servicing more frequently than anticipated by design, either the effluent screen or the wastewater characteristics should be evaluated to find the cause for premature clogging. This may indicate leaks in the fixtures, excess water use, poor wastewater quality or an inadequately sized screen for the needed application.

Invasive Moths

The following is adapted from Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF) information posted at https://www.ontario.ca/page/gypsy-moth @ July 2021.

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Lymantria dispar dispar (LDD – formerly referred to as gypsy moth) is an invasive forest defoliating insect found in Ontario.

The first detection in Ontario occurred in 1969; however, widespread defoliation did not occur until 1981. Established populations exist south of a line from Sault Ste. Marie, east to North Bay and Mattawa; a separate infestation exists in New Liskeard. The Ontario distribution coincides with the range of the insect's preferred hosts of oak; however, no known populations of LDD exist in northern parts of the range of bur oak north of New Liskeard in the northeast region, and west of Thunder Bay to Lake of the Woods in the northwest region.

State of the moth in 2020

The Ministry began aerial forest health surveys in early July 2020 (after a delay due to COVID-19 restrictions), followed by ground verification surveys.

Defoliation caused by LDD in Ontario increased from 47,203 hectares in 2019 to 586,385 hectares in 2020. This area included both light and moderate to severe defoliation mapped in the southern region (561,469 hectares) and 24,916 hectares mapped in the northeast region.

All affected districts reported an increase in area defoliated from 2019. Defoliation caused by LDD was most severe in forest stands containing species of:

- oak
- maple
- poplar
- willow
- other broadleaf trees.

In some areas, LDD defoliated conifer species including eastern white pine.

Southern region:
Most of the moderate to severe defoliation was recorded in the eastern districts including Peterborough and Bancroft. The Peterborough District had the largest area of moderate to severe defoliation of 159,578 hectares in 2020, an increase from 409 hectares in 2019. This concentrated area of defoliation extended to Kemptville District and north to Pembroke District, where smaller areas of defoliation were mapped.

Southwestern Ontario:
Areas of moderate to severe defoliation were more fragmented. The area affected totaled 99,387 hectares in the Guelph and Aylmer districts, an increase from 37,551 hectares in 2019. Defoliation was recorded in the Midhurst and Aurora districts (57,356 hectares) and extended to the Parry Sound District in smaller areas (2,046 hectares mapped).

Northeast region:
The Sudbury District had the largest area of moderate to severe defoliation of 24,262 hectares. In the North Bay and Sault Ste. Marie districts, smaller areas of moderate to severe defoliation were recorded, but in both cases the total area was higher than in 2019.

2020 survey results

In 2020 the Ministry conducted surveys to forecast anticipated LDD populations in 2021 based on fall egg mass density, which is the number of egg masses on trees in a given area, to help predict defoliation. Other factors can contribute to LDD population collapse, including:

- climate
- fungus
- viruses
- parasites.

Although LDD is still considered an invasive species that federal quarantine legislation regulates, it has evolved to a state of naturalization. This means the moth population may have periodic predictable outbreaks, which is what we saw in 2020.

2021 Regional impact predictions

Egg mass surveys showed that in 2021, defoliation was likely to be severe at all locations sampled in the following districts:

- Aurora
- Midhurst
- Peterborough
- Bancroft
- Kemptville

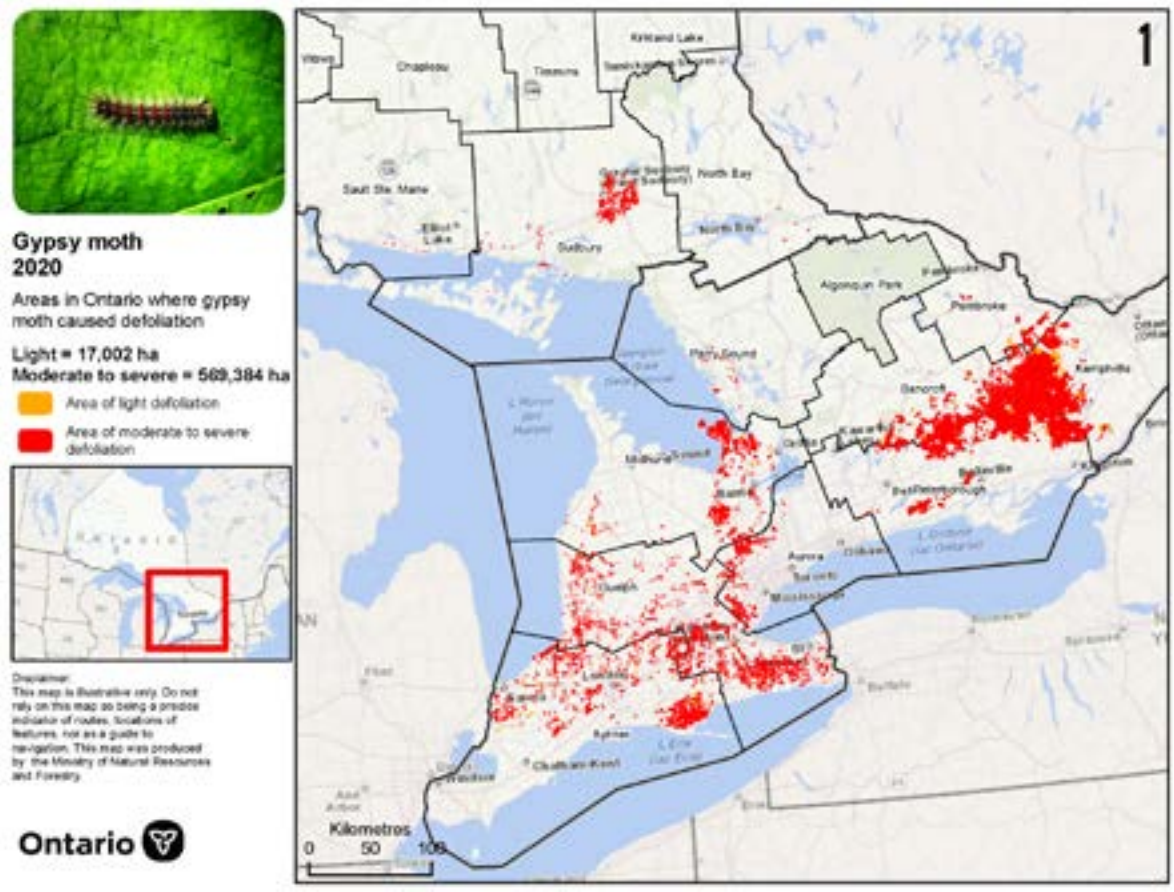
Survey protocol

To predict 2021 LDD defoliation, the Ministry used a Modified Kaladar Plot protocol at select locations in the southern region. This protocol considers the egg mass location within the stand, and the proportion of new egg masses relative to old ones. The total number of egg masses per hectare is used to forecast LDD defoliation for the following year:

- severe defoliation (more than 75% of forest stand) is projected in areas with more than 6,175 egg masses per hectare
- moderate defoliation (40% to 75% of forest stand) is projected in areas with 1,236 to 6,175 egg masses per hectare
- light defoliation (1% to 40% of forest stand) is projected in areas with 1 to 1,235 egg masses per hectare.

Complete an egg mass survey

To complete your own egg mass survey on your property, request the Modified Kaladar Plot protocols from the Ministry by email: info.mnrfscience@ontario.ca or download a copy from FOCA's webpage: https://foca.on.ca/ldd-moth/



Ministry map of areas defoliated by LDD in 2020 across Ontario

IsampleON

*This summer, the Invasive Species Centre (ISC) and FOCA are pleased to launch a new program called **IsampleON** which is using the help of volunteer citizen scientists to monitor for and prevent aquatic invasive species introductions in Ontario's inland lakes.*

The program is funded through a grant from the Ministry of Environment, Conservation and Parks (MECP). IsampleON is targeted at waterbodies on the Canadian shield that are at risk for the invasion of spiny water flea or invasive mussels. The program includes outreach, education and volunteer water sampling, with analysis at the ISC lab in Sault Ste. Marie.

Twenty-five potentially at-risk lakes were selected from FOCA's membership to participate in IsampleON based on their water chemistry, location, and existing pathways (e.g., public boat launches) posing threats for invasive species introduction. Volunteers were provided with sampling kits, including plankton haul nets, sample bottles and related equipment. Additional educational resources including signage will help to inform these lake communities about the impact of invasives and what individuals can do to prevent their spread.

The program will contribute both to local knowledge, and a broader understanding and awareness of aquatic invasives through provincial data repositories, such as EDDmapS—the Early Detection and Distribution Mapping System used across the US and Canada to digitally map documented invasive species and pest distribution. (see https://www.eddmaps.org/about)

For over 20 years, FOCA has been educating and advising Ontario's waterfront property owners about the risks associated with invasive species in and around Ontario's lakes.

FOCA remains very concerned about the potential impacts of introduced species and the effect they can have on our quality of life in Ontario. We have already seen the impacts from many existing and looming invasive species introductions, including forest pests like the Emerald Ash Borer, and aquatics like the Round Goby. These invaders have proven to alter the environment, damage our economy, and negatively impact our communities.

eDNA samples

IsampleON is also one of the first citizen science programs in Ontario to use environmental DNA as a sampling parameter. DNA (deoxyribonucleic acid) is a 'building block' hereditary material found in the cells of humans and almost all other organisms. Environmental DNA (eDNA) originates from cellular material shed by organisms (e.g., skin, excrement, carcasses) that can be found in the environment (e.g., water samples) and can be monitored using new molecular methods to identify species, populations or even individuals. (see: https://www.usgs.gov/special-topic/water-science-school/science/environmental-dna-edna)

This exciting science has the potential to be important for the detection of invasive species. We hope this pilot project will lead to the use of this methodology as a support for citizen science as well as a way to inform decision makers in the future, as part of FOCA's priority work on behalf of healthy lands, lakes and rivers.

How you can participate

Association water samplers have already been selected for this year; however, you can still get involved!

Join the 2021 **IsampleON Photo Contest** by September 30th. We want you to share photos from your favourite Ontario waterbody, to show what you are protecting, or how you are preventing the spread of aquatic invasives. All entries join a draw for a cottage prize pack valued at over $175! Enter the photo contest and learn more about the program through a link provided on FOCA's webpage, at https://foca.on.ca/isampleon/.

As always, FOCA encourages everyone to take the opportunity to share important messages about invasive species in your local community, to raise awareness and encourage people to take action to stop the spread of invasive species. If you need specific information, signage or support in your local efforts, be sure to visit https://foca.on.ca or contact info@foca.on.ca. We're here to help!

Freshwater Species Under Stress

In a paper, *"On the alarming state of freshwater biodiversity in Canada"* in the Canadian Journal of Fisheries and Aquatic Sciences (June 28, 2021) the authors reported that, despite significant data gaps, overall 11.7% of all freshwater species of plants and animals assessed were found to be 'at risk'—i.e., listed as 'Threatened', 'Endangered', or 'Extirpated'—and 17.9% were identified as of 'Special Concern'.

Invading species can have profound impacts on the success of our precious native species.

We all need to do our part to prevent the introduction and spread of invasive species in our lakes and rivers!

The Ontario Lake Partner Program

Tips & Tricks

by Liz Favot

It's sampling time!

The Lake Partner Program (LPP) is in full operation for 2021.

LPP volunteers are encouraged to submit their spring water samples if they have not already done so. Water samples should be collected in the month of May, or once a month from May to October for lakes that are off the Canadian Shield. If this is not possible, the LPP will accept water samples taken later (between May and October 2021).

Please review the sampling instructions provided with the kit to ensure proper protocols are being followed. You can also review the LPP sampling protocols in a video, here: https://youtu.be/8NUFVK8eQ6Q.

Lake Partner Program: an Overview

The LPP is a volunteer-based water quality monitoring program that provides total phosphorus, calcium and chloride levels, and water clarity (Secchi) data for Ontario's inland lakes.

The LPP began in 1996, in partnership with the Federation of Ontario Cottagers' Associations. Approximately 550 lakes are monitored each year by almost 600 volunteers at multiple sites throughout Ontario.

Total phosphorus (TP) concentrations are monitored through the LPP. TP is commonly used to interpret a lake's nutrient and algae status, as phosphorus is the element that limits the growth of algae in most Ontario lakes. Increases in phosphorus may stimulate algal growth, which can result in decreased water clarity. In extreme cases, elevated TP may contribute to algal blooms.

Algal blooms can cause a decline in aesthetic quality, increase turbidity that can reduce water clarity, and reduce deep-water oxygen concentrations that can negatively impact fish. In cases where a blue-green algal bloom occurs, there is the potential for a variety of toxic compounds to be produced. If you suspect a blue-green algal bloom, assume toxins are present and call the **Spills Action Centre** at 1-800-268-6060.

Secchi transparency (or Secchi depth) measurements are also collected through the LPP. Secchi depth provides an estimation of water clarity. Water clarity can be influenced by a number of factors such as shoreline development, climate change, acid rain, invasive species like zebra mussels, and algal growth. Generally, lakes become less transparent with more algal growth. However, in many Ontario lakes, this association can be influenced by dissolved organic carbon (DOC). DOC, also known as non-biological turbidity, gives lakes a tea-stained appearance. DOC enters lakes from run-off over soils and is often related to the presence of wetlands in the lake's watershed. Understanding a lake's water clarity, and how it changes over time, can help to identify that changes may be occurring in a lake's water quality.

In 2008, the LPP started monitoring calcium in water samples, which has helped to build a spatial database of calcium for Ontario's inland lakes. Calcium data are used to assess changes in calcium over time. Calcium levels have declined in some Ontario lakes, which may impact small, calcium-sensitive animals like crayfish that live in lakes.

In 2015, chloride was added to the parameters monitored by the LPP to understand the possible effects of road salt application. Data collected through the LPP contribute to a vast water quality database for Ontario's inland lakes.

Looking at the Numbers: How to Gather and Analyze LPP Data

Water chemistry and clarity (Secchi depth) can be highly variable from year-to-year, so a minimum of five years of continuous data is recommended, before discerning potential trends in your LPP data.

If you're new to the LPP or would like to review some of the existing information on lake water quality and the LPP, visit FOCA's Lake Partner webpage https://foca.on.ca/lake-partner-program for resources about interpreting Total Phosphorus and Secchi Data, a summary of LPP Secchi trends across the province, and more information from FOCA including a sampling video and the Lake Partner Program Report.

If your lake is missing a year of data, or sampling occurred later in the season in a year, you may be wondering how to interpret your lake data. First, if you did not take a water sample in a year, or took one late in the season, this will not impact the ability to track long-term trends in the water quality data. Long-term trends are determined by data that have been collected over many years of sampling.

If your lake only collected a late-summer or early fall sample in a year, you can cautiously interpret the results. How late-summer or fall total phosphorus data compare to spring will depend on lake type and watershed activities. If you sampled at a different time and the values seem much different than your typical spring sample, there could be many reasons why this would be, since lakes have seasonality just like terrestrial habitats and chemistry can vary between spring and fall.

What are TP1 and TP2 in the data results?

Volunteers collect water samples and fill two glass tubes on the same occasion in the field. These two "duplicate" samples are reported as "TP1" and "TP2" in the data results. The purpose of having these samples is twofold: it verifies the results, and also serves as a contingency against one sample being lost due to breakage during shipment or laboratory accidents.

It's normal for there to be small differences between these duplicates. However, if there are large differences between TP1 and TP2, one of the two samples was likely contaminated (usually the higher of the two values). Contamination normally occurs in the field and can be caused by things such as a small zooplankton or debris from the lake entering the sample or dirty fingers touching the inside of the cap or tube. You can help prevent sample contamination by rinsing the filter/funnel three times with lake surface water, by rinsing the sampling bottle and containers three times with filtered lake water before filling, and by not touching the inside of tubes or caps with fingers.

TP duplicate pairs (TP1 and TP2) are flagged when the following conditions are met:

- the percent difference from the low value is greater than 30%, AND
- the absolute difference between pairs is greater than 5 micrograms per litre (µg/L).

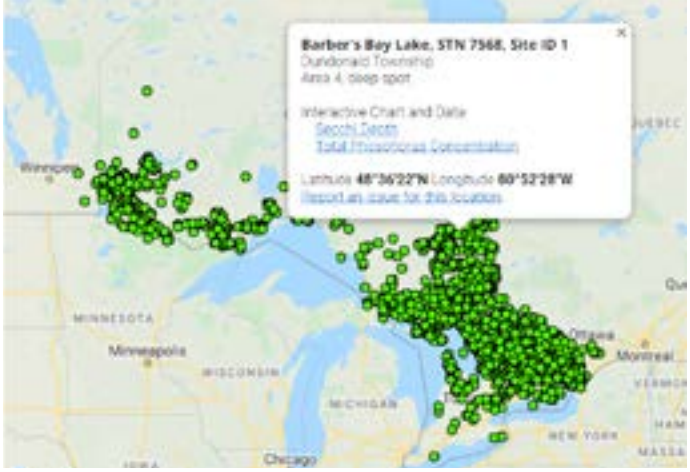
TP duplicates that meet this condition are sometimes called "bad splits" and are identified in the Ontario Data Catalogue by a row flagged as a potential outlier, or on the DESC webpage data by a yellow highlighted row. If you have a "bad split" in your TP duplicates, you can either use the lower value out of TP1 and TP2 or remove the data point (row) altogether. When TP1 and TP2 are similar (i.e. < 30% difference and values are within 5 µg/L of each other) you can take an average to represent that month or year's total phosphorus measurement.

One of the reasons we have confidence that the volunteers collect high quality TP data is because the number of bad splits in the duplicate values occur approximately 5% of the time whether it is volunteers or professionals who collect the water samples.

Analysing and Interpreting LPP water quality data

If analyzing or interpreting your LPP data is something that interests you, here are a few simple ideas:

- Compare total phosphorus data to the Provincial Water Quality Objective (PWQO), which is less than 20 µg/L;
- Compare the lake average to that of other lakes in the LPP, recognizing that different types of lakes (oligotrophic, mesotrophic, eutrophic) have inherently different characteristics. Consult FOCA's *Guide to Citizen Science at the Lake* for more about the types of lakes in Ontario; this is also available from the LPP webpage link above.



Tips to Plan for Succession of the LPP Volunteer Role on Your Lake

One of the hallmarks of a high-quality dataset is that the data are consistently collected. A benefit of volunteering with the LPP is the environmental stewardship and care for lake communities that it fosters. Combining both pieces of information, it makes sense to plan early so that your lake is never left hanging without a LPP volunteer!

There are several ways to go about this:

1. identify a keen neighbour to take over when you decide to retire from the volunteer position,
2. reach out to your lake association to help identify potential future volunteers, or finally,
3. contact lakepartner@ontario.ca as the program may have received interest from other people outside of your social network who might volunteer for the program on your lake.

It is a bonus if the replacement volunteer can sample with (or 'shadow') the previous volunteer for a period of time before the transition of the role. This way, the previous volunteer can show (or 'train') the new volunteer in exactly where and how they sample, so that sampling is as consistent as possible through the transition.

As previously discussed, building a useful long-term dataset for any lake with the LPP takes significant time and dedication from volunteers, since the baseline environmental information becomes more credible as the number of years of continuous sampling at a location grows.

We are forever grateful to the LPP volunteers for the good that their sampling is contributing for the environment, and for their communities. If we could task volunteers with one further responsibility, please start thinking about who can take over your sampling for when you 'retire' from the LPP.

Where to find the Data

The data are available in several formats and locations:

Ontario Data Catalogue
(https://data.ontario.ca/dataset/ontario-lake-partner) has the most up-to-date data (in downloadable Excel ".csv" format) for all parameters: Secchi depth, total phosphorus, calcium, and chloride concentrations.

Ontario LPP Map
(https://www.ontario.ca/environmentand-energy/map-lake-partner) lets you search by name, LPP station, or visually by zooming in and out on the map. When you click on a station, bar graphs of collected Secchi depth and total phosphorus concentrations by year can be generated. Note that this data source does not store or plot calcium or chloride concentrations collected by the LPP.

FOCA LPP Webpage
(https://foca.on.ca/lake-partner-program) provides links to all these resources, additional fact sheets and a training video for samplers.

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About the author: Dr. Liz Favot is a Queen's University Researcher, the Region 11 Director for the North American Lake Management Society, and is currently FOCA's Assistant Lake Stewardship Coordinator working at the Dorset Environmental Science Centre near Huntsville.

Lake Simcoe Act:
10 Years Later

The Minister's 10-year Report on Lake Simcoe was released this past year.

The report is significant because it outlines progress made under the *Lake Simcoe Protection Plan* (LSPP, 2009) as part of the *Lake Simcoe Protection Act* (LSPA, 2008), the first watershed-specific legislation in Canada. This arose from earlier signs of stress in the watershed, including abundant plant and algae growth and fish declines in the 1970s. In the intervening years, the population in the watershed has grown by more than 100,000 and monitoring efforts have expanded from phosphorus reduction to include other issues such as chloride contamination from winter road salt.

Currently, a wide range of governmental, academic and community partners work to protect and restore the watershed in the face of a changing climate which has had distinct impacts such as a reduction in the number of days of ice cover during the winter.

Together, the LSPA and LSPP outline actions and targets for environmental improvements in Lake Simcoe intended to address key priority areas:

- restoring aquatic life
- improving water quality
- understanding variability in a changing climate
- protecting and enhancing natural heritage, and
- addressing invasive species.

The 10-year Report notes a 50% reduction in phosphorus from sewage treatment plants entering the watershed in the last 5 years, decreased amounts of algae, and successful reproduction of cold-water fish such as lake trout.

However, the report has also been criticized for being overly optimistic and shy on hard science, illustrating a tepid provincial commitment to conservation. For example: phosphorus from sewage treatment may be down, but phosphorus loads in general are up significantly. Opponents point out that recent and proposed changes to the provincial Growth Plan, Environmental Assessment process and Conservation Authorities contradict much of the spirit of the LSPP and undermine its power.

FOCA sees value in a broad and collaborative watershed approach for Lake Simcoe, and elsewhere. At its best, the LSPA and LSPP can serve as a template for lake planning across Ontario, with the potential for enormous benefits to sustainable watershed planning in general.

FOCA posts related information here: https://foca.on.ca/lake-simcoe-act-a-model-to-follow/.

Healthy Great Lakes Coalition

For several years, FOCA has been on the steering committee for the *"Healthy Great Lakes program"* of the Canadian Environmental Law Association (CELA). This program emerged in 2016 when CELA identified a need to enhance the capacity of organizations working to influence freshwater policy in Ontario.

The group has engaged a broad network of individuals and organizations in understanding, shaping, effectively implementing, and making use of laws and policies that promote freshwater health in the Great Lakes - St Lawrence River Basin.

The priorities for this group include:

- safe drinking water for all
- getting the lead out of drinking water
- Toxics-Free Great Lakes Binational Network
- maintaining effective watershed-based conservation
- well-implemented public policy, and
- broadening the vision and the audience for healthy Great Lakes.

To find out more about these priorities and the work ongoing through this program, visit: https://cela.ca. FOCA posts related Great Lakes information on our website: https://foca.on.ca/great-lakes-environmental-research/.

Preventing the Spread of Asian Carps

Everyone in Ontario should be on the lookout to prevent the spread of invasive species including Bighead, Silver, Grass and Black carps.

To date, there have been no Silver Carp or Black Carp found in the Great Lakes, and there have been only a few captures of individual Bighead Carp and Grass Carp in the Canadian waters of the Great Lakes, including a recent capture of a single Grass Carp in Jordan Harbour (Niagara Peninsula) in July 2020. Of the captured Grass Carp, most were found to be infertile, or "triploid". It is likely that the fish caught were escapees from areas where populations were being used for aquatic plant control, or live releases.

Why all the concern, and vigilance around monitoring?

There is a considerable ecological threat from these invaders.

In particular, the Silver and Bighead carps have steadily been outcompeting native fishes in the Mississippi River and in the lakes and tributaries that feed the river. They are voracious eaters, able to consume 5 to 20 per cent of their body weight each day, leaving far less of the microscopic plant and animal life (phytoplankton and zooplankton) to support native fishes.

Grass Carp primarily consume aquatic plants, and their foraging can disturb lake and river bottoms, and destroy valuable wetlands. Their foraging also results in increased murkiness of the water, making it more difficult for other fishes to find food. The destruction and loss of aquatic vegetation also leaves native juvenile fishes without adequate cover from predators and reduces possible spawning habitats.

These carps are also prolific breeders and in some areas where they have established they have dominated habitats, making up as much as 80 per cent of the biomass. That extent of biodiversity loss is apt to make the entire ecosystem more fragile.

Silver and Bighead carps can also impact fishing gear and nets as a result of the fishes' large sizes, the density of their schools and their rigorous movement. The established population of Silver Carp in the Mississippi and Illinois River systems poses a threat to boaters' safety. Because Silver Carp can grow to as large as 40 kilograms, their leaping behaviour presents a serious danger for anyone on the surface of the lake or river where the fish are present.

The socio-economic threat is also considerable.

Should these invaders reach the Great Lakes, they are expected to have a huge impact on many of the activities and industries that currently take place there including commercial, recreational and subsistence fishing, recreational boating, wildlife viewing, and beach and lakefront use.

Government action to stop the spread

The search for evidence of these invaders comprises a major part of the efforts of Fisheries and Oceans Canada (DFO). In addition to traditional electrofishing and new sampling techniques, U.S. and Canadian researchers are currently exploring the results of environmental DNA (eDNA) testing (Great Lakes eDNA Monitoring Program), for its use in carp surveillance.

In Canadian waters, biologists from the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) and DFO work closely together to collect information and share findings and implement response activities following any find of Bighead, Silver, Grass or Black carps in Canadian waters. Coordinating with the Province of Ontario, DFO's Response Plan ensures effective communications among the various agencies involved, follow-up monitoring, and eDNA sampling to find out whether the specimen is an isolated incident or indicative of the species having successfully established.

Did You Know?

Grass Carp are voracious eaters!

An established population can result in the loss of aquatic vegetation and eventually an overall decrease in water quality. This is because Grass Carp are often not able to digest all the vegetation they consume, so a lot of undigested vegetation ends up back in the water through Grass Carp excrement. This results in increased nutrient levels, which can lead to more frequent algal blooms, and eventually an increase in turbidity levels. The loss of vegetation can also lead to erosion of shorelines which contributes to poor water quality.

What you can do to prevent the spread of Asian carps

One of the most effective ways for members of the public to assist in this vital effort is simply to share this story with your friends, family and colleagues. The more people who appreciate the costs and dangers posed by this potential invasion, the more motivated people will be to take an active part in defending Canadian waterways from the threat.

If you are a boater or a fisher:
Make sure your activities never offer a free ride to an invasive plant, fish or animal via your boat bilge or your bait buckets. Many public docks offer information to boaters and other travelers about invasive species and specific local concerns, but every individual must be vigilant.

If you are a lake association representative on the 'front lines' (i.e., along the Great Lakes shorelines):
Consider posting signs at public boat launches warning of the dangers of transporting invasive species, and share this article in your next newsletter or e-news, or at local marinas on a notice board.

If you or anyone you know trades in live fishes:
Either for food, for pets or in aquaculture (pond) management, make sure you and they observe all regulations governing banned species and ask for expert help if there is any question about the identity of a particular fish.

If you think you have found an aquatic invasive species:

1. **Do not return** it to the water.
2. Take photos.
3. Note the exact location (GPS coordinates), the observation date and identifying features.
4. Report it immediately by phone, using the Ontario Federation of Anglers and Hunters' **Invading Species Hotline** at 1-800-563-7711, or online through the **EddMapS** web-based mapping system: www.eddmaps.org.

Learn more about identifying carp invaders on FOCA's webpage: https://foca.on.ca/carp/.

CottageLINK rental management

Proud Sponsors of FOCA Federation of Ontario Cottagers' Associations

tico.ca Travel Industry Council of Ontario

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CLRM helps you share your piece of paradise with families wanting to relax and experience what Cottage Country has to offer.

Let us help you rent responsibly by advising:

- If your cottage is suitable for rental
- How to match the right guests to your cottage (and your lake)
- How to set a rental rate
- How to help rental guests feel 'at home' in cottage country
- Ways of presenting your cottage effectively
- How to adopt responsible rental practices

Our owners receive:

- Continuous support from a dedicated Account Manager
- A complete resource library with articles, downloads and videos on successful rental strategies
- Comprehensive Owners' Manual
- Regular information updates on rental activity

We Promote Responsible Rental Ownership

Our Responsible Rental Owner Programme helps cottage owners create sustainable, environmentally friendly and neighbor- considerate rental practices.

Contact us for a comprehensive Owner Information Pack at info@clrm.ca

Green Shovels & Phragmites

The Green Shovels Collaborative (greenshovels.ca) was established in 2020 to combine expertise and networks who share a common interest in protecting the environment and economy from invasive species. The collaborative consists of:

- Ducks Unlimited Canada
- Invasive Species Centre
- Nature Conservancy of Canada
- Ontario Federation of Anglers and Hunters
- Ontario Turtle Conservation Centre
- and FOCA!

There are many aquatic and terrestrial invasive species of concern in Ontario, with a number such as invasive Phragmites straddling both categories, threatening our important shorelines. Working together we will achieve bigger and better results in a more efficient manner, resulting in long-term positive change on the landscape.

For over 20 years FOCA has advised visitors and residents of waterfront communities to take steps to prevent the spread of invasive species in cottage country, and Green Shovels programming is our most current initiative. Through the Green Shovels Collaborative, FOCA has allocated resources in 2021 to support invasive Phragmites initiatives undertaken by over a dozen FOCA member associations across southern and central Ontario.

In March 2021, FOCA called for and received several applications from member groups for Green Shovels grant funding to address invasive Phragmites at their waterfronts, through both education and eradication efforts. FOCA has worked with these member associations to develop and deliver educational materials, to connect them with experts to help identify invasive Phragmites at their lakes, and to provide tools and resources needed to create control management plans and undertake removal activities.

The Green Shovels Collaborative is a multi-year initiative, looking to develop future opportunities for invasive Phragmites education and management control efforts for years to come. We will continue to share best management practices and educational tools to help lake communities and work toward greater lake health and awareness through invasive phragmites eradication.

The Green Shovels collaborative is also working on a number of innovative tools that will aid in the fight against the threat of invasive species. Stay tuned for more exciting developments!

Visit FOCA's webpage for an educational brochure you can download, the link to watch the recording of our June 2021 webinar on the subject of Phragmites, and more about the Green Shovels Collaborative: https://foca.on.ca/phragmites/.

GREEN SHOVELS COLLABORATIVE

Locations of FOCA Green shovels initiatives in 2021

Landscape Limnology

The Spatial Science of Water Quality

by Dr. Paul Frost

I think most people would agree that they prefer clean lakes that are relatively free of algae and weeds.

Excessive growth of algae is a symptom of a deeper disease, that of excessive nutrient inputs mostly due to human activities such as over-fertilization or adding untreated sewage to our lakes. As the amounts of these external nutrient inputs vary among different lakes, there can be some pretty dramatic differences in water quality between lakes located even a short distance apart. These differences in water quality can be eye-opening, especially if lakes are in the same region, are surrounded by the same landscape, and otherwise look more or less the same.

It is these types of differences between lakes that excite lake scientists (a.k.a., limnologists) who study and try to understand water quality in our freshwater ecosystems.

Examining water quality differences between lakes and trying to understand their causes is part of a rapidly developing field of water science, landscape limnology. Landscape limnology considers spatial differences among lakes, within and between regions, and relates them to information on the lakes and landscape.

In other words, we are looking at how much lakes differ across space.

We then use various types of information about the vegetation, topography, geology, hydrological flows (rivers and streams), and on the lakes themselves to explain differences in water quality.

For example, you may have noticed some lakes have a dark, rich brown colour, whereas other lakes are clearer and more transparent. Such differences in lake colour have been linked to the amount of wetland cover in the upstream landscape and to the volume of water in the lake. We can predict, to a reasonable extent, what colour a lake's water will be using knowledge of the lake's volume and the type of vegetation in its upstream catchment.

Water samples collected from streams within a few kilometers of each other can vary considerably in colour due to differences in landscape inputs of humic materials.

Trent students collecting water samples for analysis of algae and various chemical parameters. The student in the foreground is opening a Van Dorn sampler that allows for water to be collected from different depths through the water column.

This type of lake science is being completed with increasingly sophisticated technological and numerical approaches on different components of water quality on sets of lakes in different parts of the world. In Ontario, there are teams of lake scientists currently sampling lakes across the province and who will be using these approaches to understand larger scale patterns between lakes that emerge within and between regions.

You might be wondering why lake scientists go to such lengths to understand spatial differences among lakes. What is the value of this scientific work that aims to discover and understand connections between lakes and the landscape?

For one, it allows aquatic scientists to generate baseline expectations for what a lake in a given region should probably look like. These expectations allow us to judge whether a particular lake has normal or abnormal water quality. For example, if a lake is experiencing severe algal blooms and similar lakes in the region have good water quality, it could be that there are local shoreline or catchment conditions that are contributing to the lake's poor water quality.

These types of conclusions become stronger when we have more data, which means we should be sampling as many lakes as we can and as often as possible. Ultimately, this allows us to know what is a typical for lakes in a particular region.

In addition, landscape limnology allows scientists to predict how changes to the landscape, such as urban development or forest harvesting, could alter water quality in adjacent or downstream lakes. These predictions are more robust when we know the relative influence of local factors (such as shoreline vegetation) and regional forces (such as landscape vegetation or prevailing weather patterns) on water quality in downstream lakes.

Landscape limnology helps us understand lake water quality, and improves our ability to diagnose and manage emerging water quality issues.

Trent University is currently conducting research landscape limnology in the Kawartha-Haliburton region. We are sampling 30-40 lakes in the region each year and have started to collect data on the lake and catchment properties.

As our program develops, we will be comparing results from our study with other lake regions in Canada, studying connections between lake water quality and upstream landscape characteristics and how they change through time, and completing scientific studies that look at the processes connecting landscape and lake.

Learn more about our lake science and research program at https://mycommunity.trentu.ca/tarp or by contacting me at paulfrost@trentu.ca.

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About the author: Dr. Paul Frost is the David Schindler Professor of Aquatic Science in the Department of Biology at Trent University in Peterborough, Ontario.

WATER

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Seasonal Electricity Pricing

Waterfront property owners represent a large group of electricity customers, served in Ontario predominantly by Hydro One. For more than twenty years, on behalf of our members in various rate classes, FOCA has participated as intervenors at Ontario Energy Board (OEB) electricity rate hearings.

Over the past half-decade, FOCA has repeatedly warned members and the broader rural community that the OEB's 2015 decision to eliminate the Seasonal Rate Class of Hydro One customers would have a drastic impact on tens of thousands of households. FOCA could not support any decision that would see negative bill impacts to 78,000 families being moved from Seasonal to the R2 (low density) class and facing increases of over $50 per month on their electricity bills.

In September 2019, the OEB asked Hydro One to submit a Motion of Change outlining an alternate to the elimination of the Seasonal Class. Hydro One proposed that the existing and ongoing phase-in of fixed delivery costs for low density customers already deals with the *"paying what it costs to serve you"* concerns of the OEB. FOCA submitted an Interrogatory Motion supporting this approach. However, in September 2020 the OEB ordered that the 2015 Decision would stand, meaning the Seasonal Class will go.

In February 2021 all affected Hydro One customers were officially notified and told what their bill impacts would be, and public concern flamed to life. FOCA launched the *Fair Electricity Campaign* to harness this 'energy', directing everyone to email and/or call their Ontario MPPs, explaining how the doubling of electricity rates would affect their families and – by extension – the province's rural communities.

Nearly 2,000 emails and calls were made to MPPs throughout 2021!

Thank you to everyone who took part in the Fair Electricity Campaign. We know that the OEB commented on the volume of correspondence received, yet they still stated, *"[the] fact that there are impacts associated with the elimination of the seasonal class does not render the decision to eliminate the class incorrect."*

Hydro One has proposed a phase-in period for customers expected to experience a total bill impact of greater than 10% as a result of migrating to another rate class.

Thank you to the 2,000 of you who participated in the Fair Electricity Campaign in 2021!

As of late July 2021 the implementation process is still under discussion, with Hydro One expected to respond to the OEB by late September with additional requested information such as the change implementation date, details about how different proposed dates affect rates for each customer class, and how the proposed 10% bill increase cap will be funded during the years it would need to be in effect.

Importantly, the OEB has confirmed that seasonal customers will still NOT be eligible for the Rural or Remote Rate Protection (RRRP) or Distribution Rate Protection (DRP) subsidies. The RRRP program *"is designed to provide financial assistance to eligible customers located in rural or remote areas where the costs of providing electricity service to these customers greatly exceeds the costs of providing electricity to customers located elsewhere in the province"* and is part of the Province's Ontario Energy Board Act, under O.Reg. 442/01.

Thus, it would need to be a decision of the Province to change the wording in the RRRP that currently defines *"residential premises"* as a *"dwelling occupied as a residence continuously for at least eight months of the year"* – effectively excluding most seasonal properties.

With this in mind, FOCA will continue to lobby the Ministry of Energy, and the Ministry of Northern Development and Mines, Natural Resources and Forestry to ensure fair and equitable treatment of all rural residents. Otherwise, a seasonal property next to a permanent waterfront property will be paying completely different electricity prices for the same level of service delivery.

FOCA continues to post updates (and background) on this significant file, here: https://foca.on.ca/electricity-pricing/.

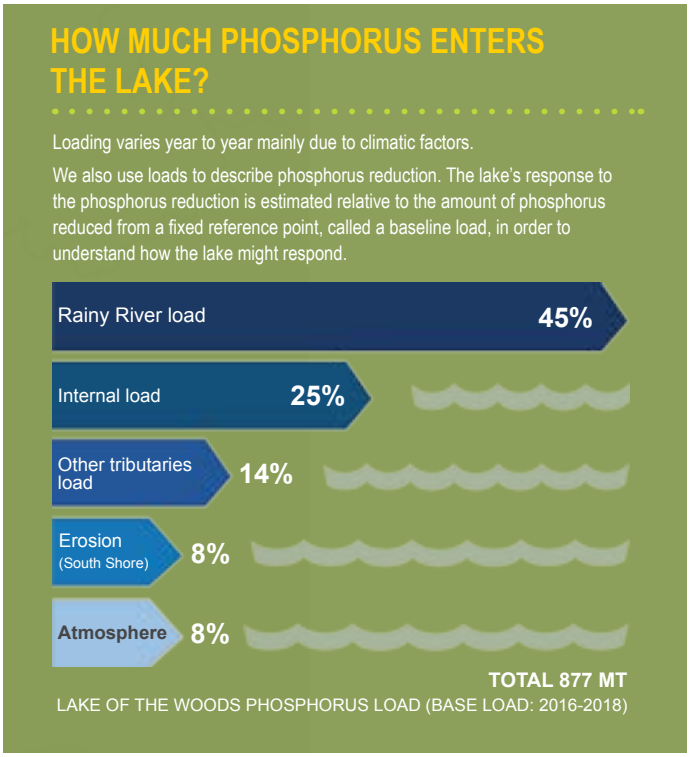
Lake of the Woods Phosphorus and Algae

The other Ontario "Great Lake" – Lake of the Woods – has been under a Plan of Study by the International Joint Commission since 2015.

Earlier this year, the Federal Ministry of Environment and Climate Change Canada (ECCC) invited public input into proposed ecosystem objectives and potential phosphorus reduction scenarios, to reduce harmful algae in Lake of the Woods, after a 4-year nutrient and algae research program.

Lake of the Woods is 135 km long and 90 km wide at its widest point, has an area of 4,400 km^2, and contains more than 14,500 islands. It is located mostly in Ontario, but also occupies some of Manitoba, and Minnesota. The lake drains into the Winnipeg River and then into Lake Winnipeg. Ultimately, its outflow goes north through the Nelson River to Hudson Bay. The Lake of the Woods District Stewardship Association is FOCA's largest, and most westerly, member Association.

FOCA posts related information here: https://foca.on.ca/new-call-for-action-lake-of-the-woods/.



source: Environment and Climate Change Canada

What's Your Cottage Succession Plan?

As real estate transactions increase in number and cottage prices soar, understanding how and when capital gains tax applies to cottage sales – and techniques to reduce or defer it – becomes increasingly important during the intergenerational transfer of ownership that faces many families over the coming years.

How will YOUR family manage to keep the 'family' in the family cottage?

FOCA has been 'on-the-road' with estate lawyer Peter Lillico for the past decade, delivering information to cottage owners across south-central Ontario about successful cottage succession planning.

In 2020 and 2021, our usual 'in-person' events shifted into the digital realm, which enabled us to bring these topics to even more members, and those further afield. The seminars are free to members of FOCA Member Associations on a range of topics, from the *"Cottage Succession A to Z"* introductory session, to deeper dives in sub-topics such as the key importance of creating a Cottage Sharing Agreement, Targeting Tax, Trusts, and more.

For more or to register for an upcoming webinar, consult: https://foca.on.ca/cottage-succession/.

Healthy Shorelines – the 'How' and 'Why'

by Terry Rees

Waterfront property owners are fortunate to be able to enjoy such a legacy of healthy freshwater resources across this great province of ours. We also share responsibility as people who steward the land, and that need to look out for the long-term sustainability and health of our lakes and our shorelands.

A healthy shoreline is a natural shoreline; leaving the existing native trees and shrubs intact supports healthy fish and wildlife populations and better water quality.

Augment Mother Nature's existing work with some native plants, and allow it to fill in over time. A variety of native plants allows for so many important life processes to take place along your shoreline: the spawning of fish and aquatic insects that feed them, habitat and cover for frogs and turtles and so many of the critters that are signs of a thriving and healthy lake or river.

A sustainable property will have a good buffer of natural plants right along the shore's edge, but can still enjoy some clear areas well back from the water, where kids can run and play. But right at the water's edge, aim for a selection of shrubbery, rocks, fallen logs, grasses, small trees, and natural debris. In addition to being great habitat, this protects the water quality and prevents shoreline erosion due to deep and varying root depths. If much of your property is lawn leading straight to the water, you may have problems with geese which invade manicured area and leave behind a mess everywhere. A barrier of natural habitat right at the shore's edge discourages geese from landing here or moving up further onto the property.

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Find more resources on FOCA's webpage: https://foca.on.ca/shoreline-owners-guide-to-healthy-waterfronts/ and share Terry's video about Natural Shorelines, posted here: https://foca.on.ca/cottage/.

There's lots we can do as individuals to contribute to the physical health and aesthetic beauty of our waterfront properties. Can I sum it up in five words or less? You bet:

Less lawnmower.
More hammock.

Do your part!

Federation of Ontario Cottagers' Associations

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