October 4 2022

Deputation to McKellar Township Council

From the Lake Stewardship and Environmental Committee (LSEC) of McKellar Township, Jennifer Ghent-Fuller, Chair

Activities of the Lake Stewardship and Environmental Committee of McKellar Township Sept 2021-Sept 2022

1. **Waterfront**

There is a concern in the township about some changes which have been made on the lake, namely the removal of trees and other deep-rooted vegetation from the lakeshore. Degrading the vegetation at the waterfront promotes erosion and impedes the removal of nutrients and contaminants by such vegetation before it can enter the lake as part of rainfall or ground water run-off. We are considering writing a shoreline protection bylaw that we can recommend to Council. The plan is to make such a document easily consumable and workable and accompanied by an education package. We are examining bylaws from other areas as well as following the suggestions being developed by staff at the Federation of Ontario Cottagers Associations (FOCA). We have also distributed educational information on maintaining healthy waterfronts, including the Lake Protection Workbook mentioned below. We also have a recording on work permits, boat houses and the Public Lands Act available for residents.

2. **Clean Water for Household Use**

In examining the work done by the Ad Hoc Lake Stewardship and Environmental Committee on regular mandatory septic inspection, including a report received by Council, we sourced the origin of such mandatory inspection programs as being with the Drinking Water Source Protection Plans in Ontario which were legislated after the Walkerton water contamination tragedy. The Township of McKellar and the Seguin River Watershed (including the town of Parry Sound) are not included in any Drinking Water Source Protection plan. Therefore, as an initial measure, LSEC opted to do education in this area. We purchased 1700 copies of the Ontario Government's publication, Septic Smart and 1600 copies of the Lake Protection Workbook published by Watersheds Canada in conjunction and cooperation with the Manitouwabing Lake Community Association. These publications, together with a cover letter (attached) were distributed to each household in McKellar Township by a group of approximately seventeen residents who volunteered when the request was made for their assistance. Extra copies are available in the McKellar Public Library. We have also made a video available on the care of septic systems and the treatment of well and lake water to make it potable, and removal of microfibers and microplastics from washing machine effluent to keep these out of the atmosphere and out of the septic bed. (see Attached list of videos).

3. Fishing

Committee members worked with Steve Scholten of the MNRF to post information about reporting their catches from Armstrong Lake, which was stocked last summer. The reporting site also provides information about bait regulation. A sign was created and posted at the Armstrong Lake waterfront by township staff.

The LSEC used a resource developed by the Ad Hoc committee to create a sign which succinctly summarized best practices for catch and release fishing and post these at public and private boat launch sites in McKellar Township. These signs were also distributed as a flyer at the McKellar Market this summer **(see attachment).**

4. Lake Water Quality

In cooperation with MLCA, which provides volunteer samplers, the LSEC monitored the E. coli levels in six township lakes this summer, and increase of one lake. On the whole, there were no hot spots, other than a couple which were likely caused by the recent passage of a flock of geese. The Lake Capacity Study of 2021 measured the phosphorus levels in the various parts of the lake in a systematic manner. These sites were different from the sites sampled in the Lake Partner program. The 2021 sites were sampled again in 2022. In conjunction with MLCA, phosphorus will be sampled every year. The Lake Capacity Study pinpointed replacement of previously removed vegetation at the lake shore as being the most easily changed practice to help mitigate the level of phosphorus, and thus prevent the blue green algae blooms, and the accompanying release of the toxin microcystin, which result from excess phosphorus. We are awaiting expert assistance in analyzing our phosphorus levels and the deep water oxygen levels which were measured at the time of sampling.

5. Dark Skies

We conducted education on the benefits of dark skies for wildlife and for increased visibility of the night sky. (see attachment).

6. Tire Reefs

We have established the existence of tire reefs in the lake. Documentation is in the MLCA archives which have been donated to the care of the McKellar Historical Committee.

7. Water levels

A compilation of the recent experience with water level regulation was written and is available to the public. (see attachment)

8. Invasive Species

Signs were posted at launch sites encouraging boaters to clean their boats when travelling from one lake to another. Sampling was done by MLCA through FOCA to evaluate the existence of invasive species in Lake Manitouwabing.

9. ICECAP

Work on the Integrated Community Energy and Climate Action Plan is in a temporary hiatus in McKellar Township. We hope that staff will have the opportunity to continue with this research and to analyze data in cooperation with the Georgian Bay Biosphere. ICECAP is part of a Canada-wide initiative of municipalities to combat climate change.

10. Clean Up Our Lakes

A bin was placed at the transfer station for residents to place refuse from the lake from April 28th to May 28th in order to beautify area lakes and remove hazardous materials from the lake in this third year of this successful program.

11. Benthic Study

2022 is the third year of a three year initial assessment of a study of the health of Lake Manitouwabing by examining the "bugs in the mud." We look forward to receiving the report from GBB shortly.

12. Encouraging the proliferation of butterflies, other pollinators

Information was disseminated at the McKellar Market on planting for pollinators and for altering garden clean up practices to support the wintering of these and other insects. We hope to be accepted into the David Suzuki ranger program for next summer, which would encourage the planting of pollinator patches next summer.

13. Boating and Boat Wakes

We continued to promote boating safety and diminution of boat wakes this summer at the market. We will be giving assistance to a research project which will measure the impact of boat wakes in 2023. This research is also being done in other Ontario Lakes. (see attachment)

We would like to thank the staff of the McKellar Township for assisting our efforts, specifically, Lynne Campbell, Jan Gibson, Greg Gostick, Mary Smith and Ina Watkinson. Their pleasant cooperation has made our work much easier.

Respectfully submitted,

Jennifer Ghent-Fuller

Chair

Lake Stewardship and Environmental Committee of McKellar Township

Summer 2022

Dear McKellar Township Resident,

The distribution of the Lake Protection Workbook and the Septic Smart booklet has been made possible through funding from The Lake Stewardship and Environmental Committee (LSEC) of McKellar Township and The Manitouwabing Lake Community Association (MLCA).

The LSEC has been considering a number of issues that affect the environment such as:

• waterfronts • blue green algae • water quality • fishing and fish habitat • septics • dark skies	• lake capacity • pollution • plastics • invasive species • water testing	• boating • water levels • geese • pesticide use • climate change

Drinking Water Source Protection Area regulations in Source Protection Plans contain policies to address identified activities that could pose a threat to sources of drinking water for 95% of the population of Ontario (see http://www.actforcleanwater.ca/reports/source-protection-plan/). However, McKellar Township is one of the many areas of the province which was not included under this legislation, initiated after the Walkerton water contamination tragedy in a mainly rural area similar to McKellar. So, the committee realized that in terms of governing the purity of our drinking water and the safety of our sewage treatment, for now, each household in McKellar Township must be entirely independent, without government framework or regulation. For that reason, we looked for educational material that would allow each household to know the best practices on their property for their health and the health of our environment.

There are many lakes, rivers and creeks in McKellar Township, so wherever you live, whether or not your property touches a waterbody, you can positively affect the health of lake and river (surface) water and well (ground) water. Issues in the Lake Protection Workbook such as lawn and gardens, recreation, wetlands, wildlife, sewage systems, light pollution and runoff, are applicable to all properties; shorelines and docks and boat houses pertain to lake front or river front properties. Septic Smart, published by the Ontario Ministry of the Environment, is applicable to everyone who dwells in McKellar Township.

The biggest risk to contamination of drinking water is the inadequate maintenance of nearby sewage/septic systems, which may permit seepage of nutrients such as phosphorus and nitrogen into the waterways. Wells can become contaminated with E. coli bacteria, causing gastric distress and, if severe, death. Drinking water can also be contaminated with other pollutants that find their way into the environment, such as pesticides, fertilizers, gasoline, and plastics. Having increased vegetation allows the removal of contaminants from ground and surface water. Natural vegetation has long roots and traps excess nutrients, as well as contaminants, in the leaves and vegetation of the plants. Grass

has short roots, and the rate of absorption of rain water and snow melt is lower than areas of the ground where the vegetation is indigenous and consists of taller plants, bushes and trees with deeper root systems. Winding pathways slow the runoff of rain allowing increased water absorption into the ground before reaching nearby ditches and waterways. Climate change is also mitigated by the growth of indigenous plants, especially trees. If an urban area is heavily treed, the average temperature is 8 degrees cooler than urban areas that are mainly paved or covered in structures. Trees and bushes around the edge of the lakes and rivers cool the water and help prevent such occurrences as harmful blue green algae blooms, which can be more likely with higher water temperatures. The integrity of your septic system is assisted by plants with shorter roots.

An extra word about insects. It has been estimated that if we do not change our practices, instinct life could be extinct by 2080. Insects are essential to life on the earth – they pollinate plants, decompose waste and organic matter, control pest populations and are an important food source for birds, mammals and reptiles. By growing your garden and your yard organically, you can prevent pesticides from harming our essential insect population. Don't clean up your yard in the fall - by waiting until the temperature has been 10 degrees for a few days in the spring to remove the leaves and deadfall on your property, you can promote the survival of the insects. Pollinator patches – small gardens of indigenous plants that bloom at different times – also promote the population of insects.

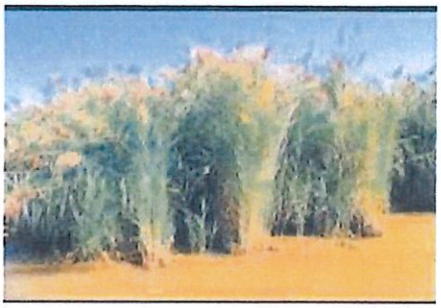
We are encouraging the 75% rule. Keep 25% of your yard for your recreational or garden use, and give the rest of your yard over to the control of nature. Enjoy the birds and animals and insects such as butterflies that will move in to your naturalized area. It's not a concept that comes easily in a country where large grass lawns are synonymous with civilized living, however we need to care for nature in the way that suits it best, by letting it be natural. If you have waterfront property, the 75% suggestion also applies. Minimize your footprint at the waterfront and leave the rest of the "ribbon of life" that exists along the shoreline to the plants and wildlife that need it to thrive.

The MLCA has formed a Shoreline Restoration group in order to help property owners assess shoreline improvement projects and to connect them with the appropriate resources required to get it done. The process will involve site visits for interested owners, suggestions for planning and plants to use and a subsidy to help with the cost. If you would like to consult with this group or help with this project please email admin@mlca.ca .

The video presentations of the Lake Stewardship and Environmental Committee and the Public Library of McKellar Township are available on the YouTube Channel: 'McKellar Miscellany.' The list of videos with links is posted on the Township website, including Joyce Hopkins' Video Tour of 'The Gardens of McKellar,' which can be found at https://youtu.be/eRGrYIGlhlM. You can be assisted to view all videos at the McKellar Township Public Library.

If you have any questions or comments, you can reach the Lake Stewardship and Environmental Committee at lsec.mckellar@gmail.com.

Help stop the spread of Phragmites to McKellar Township



- Very successful invasive grass/plant (reed from Europe) that spreads easily and out-competes native plants
- Although typically thought of as marshy, this plant thrives in even harsh conditions and has no natural controls
- A nutrient bully, it disperses a chemical from its roots that harms other plants
- Frequently grows densely and develops into LARGE Mono-Dominant Stands where it is an impossible habitat for the survival of many native species – virtual dead zones
- Can grow in excess of 15 feet high, blocking views and access ways to waterfronts, and creating municipal visual hazards
- Seeds are easily distributed by wind (10 km. radius), flowing water, and through human interaction usually from moving heavy equipment
- Spread is rapid and facilitated by road construction where you often see stands of Phragmites in culverts and ditches
- In Ontario, it is illegal to import, deposit, release, breed/grow, buy, sell, lease or trade invasive Phragmities (Phragmites australis subsp. Australis)
- **Difficult, but not impossible to stop. The more we leave it, the more difficult and expensive the clean-up of the invasive Phragmites will become.**

Invasive Phragmites:

- Grows in stands that can be extremely dense with as many as 200 stems per square meter
- Is so dense that it crowds out other species
- Can reach heights of up to 6 meters (18 feet)
- Is very common in roadside ditches
- Has tan or beige stems, blue-green leaves and large, dense seedheads.

Comparing invasive phragmites stems (left) to native phragmites stems (right) (Photo courtesy of the Great Lakes Phragmites Collaborative)

Native phragmites:

- Grows in stands that are usually not as dense as the invasive plant; unlikely to be found in roadside ditches
- Its well-established stands are frequently mixed with other plant species
- Usually has more reddish-brown stems, yellow-green leaves and smaller, sparser seedheads

If you see a stand of Invasive Phragmites,

You can report an invasive species by calling the **Invading Species Hotline** at **1-800-563-7711**

Lake Stewardship and Environmental Committee of McKellar Township

Protecting McKellar Township from Invasive Species

An Invasive Species is a fast-growing and quickly reproducing species brought by humans and animals to a new area which lacks natural predators. Phragmites, for example will decrease biodiversity by crowding out other species and it has such dense growth that animals and amphibians cannot use it as habitat. Milfoil can clog a lake so that boating becomes impossible.

Eurasian water – milfoil is a fast-growing perennial, it forms dense underwater mats that shade out other aquatic plants. When large stands begin to die off in the fall, the decaying plants can reduce oxygen levels in the water, potentially affecting the fish communities.

What can we do? Prevention and early detection can let us avoid massive outputs of labour and resources to undo damage caused by invasive species.

We can learn how to recognize invasive species. At the website, "Invaders | Ontario's Invading Species Awareness Program" there are illustrations of invasive terrestrial plants, aquatic plants, invertebrates, fish and forest pests.

We can report sightings of invasive species at www.eddmaps.org/ontario. The EDDMapS Ontario app brings the power of EDDMapS to your smartphone. Now you can submit invasive species observations directly with your smartphone from the field. These reports are uploaded to EDDMapS and e-mailed directly to verifiers for review.

We can prevent the spread of invasive species ourselves by washing boats and other aquatic vehicles and equipment between lakes, buying local bait and not dumping bait buckets into the lakes or other waterways. In Ontario, it is illegal to dump the contents of a bait bucket (water, soil, or other material) or live or dead bait (including fish eggs, gametes, or fish parts) either directly into the water or within 30 metres of it. This includes dumping onto the ice. Anglers should retain a receipt to show they bought their live bait within their Bait Management Zone. This will prevent the spread of invasive aquatic plants, fish and invertebrates from one area to another.

Safe Boating

Safe and enjoyable water activities require a balance between responsible boating, swimming and fishing. Boaters' actions may break apart the nests of waterfowl, erode the shoreline, negatively affect water quality, damage docks and moored boats and cause harm to fish, boaters, and swimmers.

Slow down in narrow channels (10 km/h within 30 m of shoreline), so your boat has no wake near other craft, or docks, or swimmers and in environmentally fragile areas. Frequent high wakes near the shore erode the soil, causing trees and other vegetation to fall.

Respect your neighbour's peace and quiet: have quiet waters after sunset and before sunrise.

Do not chase waterfowl or animals in your boat.

When towing, have a spotter, a seat and a lifejacket for each person.

Refuel on land. Gas is absorbed by plants and animals, including the fish you eat.

Ensure you have a boater's card and proper safety equipment – personal flotation devices, flashlight (not your cell phone), a rope with a float, a whistle and a bailer. Scan this QR code to view the Transport Canada website listing mandatory safety equipment.

Follow all provincial alcohol and substance laws: do not drive a boat under their effect.

Visit Safe Quiet Lakes.ca

Watch the video at https://www.bewakeaware.com/

BOATERexam.com® Educating Boaters Online

Contact the OPP provincial communication centre 1-888-310-1122 to report any unsafe boating infraction. In an emergency call 911. Do not approach or otherwise intervene with perceived offenders. If possible pictures should be taken and provided to an OPP marine operator.

Lake Stewardship and Environmental Committee of McKellar Township

Catch and Release

 Use a barbless hook	 Release the big breeder fish
Fish cannot live after all day in a live well 	 A rounded hook is easier to remove
 Fish on a string don't survive	Use proper long-nosed pliers 
Keep fish in the water until your camera is ready 	 QR code for catch and release video

DARK SKIES FOR MCKELLAR - a better way to go

Many communities the world over are heeding research on the benefits of having dark night skies and are creating policy, guidance, and best practices for responsible, environmentally-supportive lighting systems.

Do you ever wonder why we see so few stars in the urban cities? Light escaping from over-lighting skyward-facing bulbs and unshielded sources pollute our skies and prevent a clear view of the heavens. It is estimated urban lighting allows people to see as few as 100 stars on a moonless night. Dark Sky initiatives will allow viewing over 3000 stars on a moonless night, even the Milky Way.

A recent story is told by a fisherman who often fished at night on Manitouwabing Lake in the early seventies. He described the beauty and tranquility of the stars from his boat, and how dismayed he is to have lost that view because of excessive shoreline lighting.

Some facts and tips coming with the new research and initiatives will help us return to dark skies here in McKellar:
Lighting glare is the visual discomfort from unshielded light where you can directly see the bulb or light source. This can be dramatically reduced with downcast lighting, shields on outdoor lights, dimmers and timers installed that limit lighting, fixtures that eliminate sideways and upward lighting, aiming lights down and away from the water, reducing wattage in bulbs, using a softer color, replacing elevated security lighting with downcast lamps and removing lights from docks. Avoid using one large bright fixture for security, studies show it does nothing to increase security but causes aggravation to your neighbors from light trespass.

Reduced shoreline lighting improves visibility on the water at night for safer boating. Studies show excess light in the sky effects migratory birds, wildlife, fish patterns, boating safety, nocturnal animal behavior and more. Wasted lighting is expensive. Most lighting modifications pay for themselves. With a little thought and care we can reduce the negative impact we have on our environment and the people and critters that live here with us. We live in a bit of paradise, let's keep it that way.

So join in, we can all do a little better resulting in a much improved environment, better yet seeing the beauty of our night skies.

For more information visit darksky.org or foca.on.ca or

the Dark Sky Sites program of the Royal Astronomical Society of Canada, https://rasc.ca/

Lake Stewardship and Environmental Committee of McKellar Township

Better Lights for Better Nights

Help eliminate light pollution. Select the best fixture for your application using this guide. Use the lowest wattage bulb appropriate for the task and turn off the light when it's not being used.

presented by the

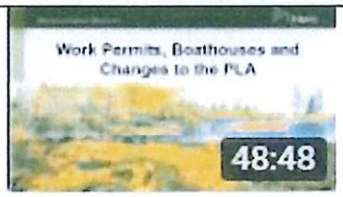
Dark Sky Society

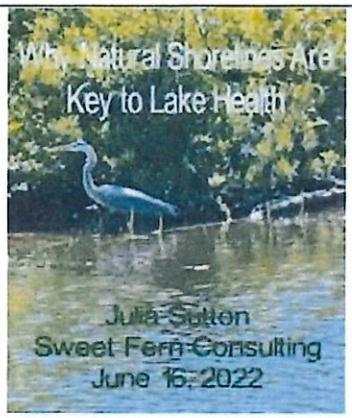
www.darkskysociety.org

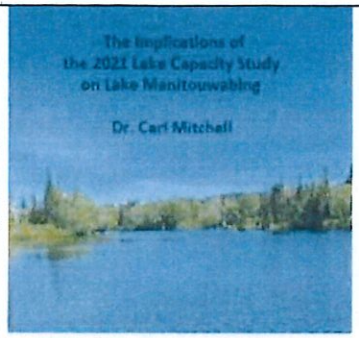
Links to Videos

Lake Stewardship and Environmental Committee of McKellar Township, Ontario, Canada

September 12 2022

1.	**The Gardens of McKellar** – A virtual tour of 8 gardens in McKellar Aug 24 2021, Joyce P. Hopkins		https://youtu.be/eRGrYIGlhIM
2.	**Natural Edge** with Calvin Blewitt, Watersheds Canada May 7, 2022		https://youtu.be/F3177Jr4kkk
3.	Treating Lake Water or Well Water for Household Use with Bruce Butler May 12, 2022		https://youtu.be/aQldfiF1dtc
4.	Work Permits, Boathouses and Changes to the Public Lands Act - with S/Sgt Robert Gibson Manager-Parry Sound Enforcement Unit Enforcement Branch/Northeast Region Enforcement Operations Ministry of Northern Development, Mines, Natural Resources and Forestry May 25, 2022		https://youtu.be/Z4bcSQPG91U
5.	**Sources and solutions to microplastic fibers in our watersheds.** PhD candidate, Samantha Athey outlines her research on microplastics. Some research has been completed in Parry Sound. Washing machine filters are available. March 10, 2022		https://youtu.be/SlMgc5QA-ZY

6.	**Why Natural Shorelines are Key to Lake Health** Julia Sutton, of Sweet Fern Consulting details how maintaining naturalized vegetation along the shoreline helps maintain the health of our lakes. June 16, 2022		https://youtu.be/zcYuyUi8yAY
7.	**Hummingbirds in McKellar Township.** We celebrated the return of hummingbirds to McKellar Township with this presentation by Erich Eberts, Ph.D. candidate from the University of Toronto. Erich discussed the biology of hummingbirds including the effects of nesting, body fat, seasonality and temperature on hummingbird torpor use. June 11, 2022.		https://youtu.be/_mqDW90mTH4
8.	**Maintaining Your Septic System** with Danielle Ward describes the independent onsite sewage system that each household has when a municipal sewer system is unavailable. Septic system owners need to care for the septic bed, keeping it clear of deep-rooted vegetation and heavy weights. Regular maintenance of the septic tank is described in detail, including pumping of the tank and cleaning of the filters.	 Danielle lists items that will clog a septic bed or tank if flushed, resulting in possible back-ups and costly repairs. The question period at the end highlights common concerns of septic system owners. July 14, 2022	https://youtu.be/P3SZLLr9F4Y

9.	**Implications of the 2021 Lake Capacity Study of Lake Manitouwabing,** Presentation by Carl Mitchell, Ph.D., Professor, Department of Physical and Environmental Sciences, University of Toronto Scarborough, Aug. 23, 2022		https://youtu.be/dj4bHsS1kuY

Water Levels on Manitouwabing Lake:

A summary of correspondence and current positions

November 4 2021, Amended July 18 2022

In the early spring of 2017 concern was raised in McKellar about the low water levels on Manitouwabing and Grey Owl lakes. Anticipating flood conditions, Bracebridge Generation Ltd. lowered the water level to 0.1 m above the normal operating zone (NOZ). Other lakes in the watershed were also being operated at the lowest levels of their NOZ, due to the possibility of flooding predicted by Bracebridge Generation based on a March 15 survey of snow conditions. Community concern was expressed that the water level should not have been dropped just before a predicted cold snap. The result was frozen water lines and other structural and property damage. Concern has also been voiced about the aquatic life which winters buried in the lake bed near the shoreline that may not have survived when the protective water was drained, causing freezing and damage to the lake ecosystem.

Background:

The normal operating zone for water levels was established in a resolution of the Public Utilities Commission of the Town of Parry Sound (No. 87-83) on August 10, 1987. A benchmark of 240.3 meters above the mean Altitude at Sea Level (mASL) was set. It was resolved that: "the water level in Lake Manitouwabing be held around the 6" below the bench mark and not less than twelve inches (12") down from the bench mark during the months of June, July, August, September and October, subject to any conditions beyond our control"; that, "the commission endeavour to maintain the water levels not less than twenty-four inches (24") down from the bench mark during the months of November, December, January and February"; and, that "the water level be held not less than thirty-two inches (32") down from the bench mark during the months of March and April prior to the spring run-off, to prevent flooding." The levels established by this resolution remain in effect in 2021.

A public meeting was held on April 20, 2017 at which a number of issues were raised, including: a question of the status of the Special Advisory Committee announced two years previously which was designed to provide input into the implementation of the Seguin River Simplified Water Management Plan (SRSWMP) written in 2010 by the Parry Sound Power Gen as required by MNRF. (The SRSWMP was updated in 2018 (attached) by Bracebridge Generation Ltd., which merged with Parry Sound Power Gen in 2014.) Other concerns raised at the meeting were: why the lake level was lowered when a cold spell was predicted; were the relevant snow levels measured in McKellar Township or elsewhere; should the minimum and maximum levels be reviewed and revised; what was the impact on fish and marine habitat; and, would there be compensation for property damage. Actions promised by Bracebridge Generation Ltd. at the meeting were to improve communications with the municipality, to activate the Standing Advisory Committee by June 1, to regularly send water level reports and to review the event and attempt to avoid a similar event in the future.

A letter sent from the Township of McKellar on May 10, 2017 requested: formation of the Standing Advisory Committee; improved communication from Bracebridge Generation Ltd.; more sensors placed in the watershed; a recommendation that the spring draw down not only be done according to the date, but also according to predicted weather conditions; review and if needed, adjust the minimum-maximum water levels for Manitouwabing Lake at Hurdville; when snow levels are measured in the bush

they should be measured locally; and lastly, a review of the watershed plan was requested in view of the flooding and erosion concerns from 2015 and the concerns about the low levels in March and April of 2017.

In October of 2019, a presentation was made to McKellar Council by Bryan Ingram, Operations Manager of Bracebridge Power Generation, after which the council requested involvement in the review of the SRSWMP and a suggestion was made by council to raise the current minimum water level. A reply from Bryan Ingram stated that there is no formal plan review and referred to removal of water management plan expiry dates, and, plan term and mandatory reviews, due to administrative amendments to water management plans in the province resulting from the 2016 MNRF 'Maintaining Water Management Plans Technical Bulletin.' Mr. Ingram requested that, if the township wished to pursue an amendment to the SRSWMP, it should follow Section 7.3 Plan Amendments. McKellar Township Council replied with a resolution, dated Nov 4, 2019 (19-799) under section 7.3, which requested that "the Seguin River Simplified Water Management Plan (SRSWMP) review its current minimum-maximum water levels in McKellar Lakes with the MNRF" and suggested it is too low and is affecting wildlife, fish habitat and lake quality.

Upon receiving resolution 19-799, Bracebridge Generation Ltd. replied on Feb 20, 2020 with documentation of many years of water levels in the summer which were lower than the 240 m minimum. In this reply it was noted that since the 2009 implementation of the SRSWMP "there have been no events where the depth of the low water events exceeded a value greater than 0.1 m below the minimum of the plan at 240.00m" and that the average duration of low water levels has decreased from 76 days to 41 days. It was further stated that there is no ability to improve operations at Hurdville Dam within the existing WMP in order to avoid occasional low water occurrences and that drought conditions are beyond the control of Bracebridge Generation Ltd.

There was also clarification that the Township of McKellar would need to request an amendment to the plan, rather than requesting that Bracebridge Generation amend the plan. The reply stated that the amendment request from the township should contain:

a. "Description of the changes being requested – the township needs to state if you are seeking an increase in minimum and maximum levels or something else
b. Rationale for the changes being requested – the township has provided some rationale around water taking, water quality and ecological concerns due to low water during the summer. However do you have anything to qualify these observations, i.e. results of community ecology studies / observations. Results of water quality testing should be included with reference to reports that may be submitted as an appendix to the request and so on. How many complaints did you receive about water taking/ boat docking problems? Is the township experiencing issues delivering their programs due to low or high water levels? If so, what are they?
c. Results of any pre-consultation completed with potentially affected parties – township should provide information on consultation to date to support this request. Do residents support this? Have residents requested this (petition to council, survey of residents, etc.)? Higher summer water levels may not be possible without higher spring levels to store the water in anticipation of hot dry summers with significant evaporation – would this be acceptable? Would there be damage to shoreline infrastructure etc? This type of information should be included in the request.

d. Where changes in operation are proposed, a description of how the proposed changes may impact other dams subject to the WMP – the township may need to commission a small study (or complete internally) to describe this. The township should also identify potential impacts associated with the proposal as a requested change to water levels is potentially complex.
e. Please also direct your attention to the LIRA Technical Bulletin for Maintaining Water Management Plans – Section 3.3 https://www.ontario.ca/page/maintaining-water-management-plans for the step by step information for preparing your request for consideration."

On July 19, 2020 a request was sent by the township to the MNRF requesting that the ministry support the request by the township for a modest raising of the minimal water levels.

Suggestions for future action:

A) Evaluate the results of the benthic study being carried out by GBB (completion of initial assessment expected in the fall of 2022), especially the comparison to other lakes in the area.
B) Request that the township combine a record of the lake level monitoring from Bracebridge Generation Ltd. with a list of public complaints concerning water levels.
C) Request that the township study the exposure of the lake bed at the shoreline to freezing conditions and the exposure to established spawning beds of water levels that are too low to enable the fish to use them for spawning. Locate these areas on a map of McKellar Township. The township could consider hiring an ecological expert to complete such a study.
D) Determine the water level at Hurdville Dam beyond which with further lowering there is exposure to the fauna of the lake and a threat of their elimination due to freezing.
E) Explore any actions taken following the release of the Seguin WMP Amended 2018 06 29, namely concerning the following section:

6. EFFECTIVENESS MONITORING PROGRAM

The SRSWMP effectiveness monitoring program will determine whether the operational changes arising from implementation of the WMP result in the anticipated ecological and social improvements. Specialized flow management through dam operations, identified within the SRSWMP, was intended to address/improve the sustainable minimum flow at walleye spawning sites at Hurdville Dam, Mill Lake Dam, Grey Owl Lake Dam, Harris Lake Dam, Haines Lake Dam and the CPR Trestle Dam. The dam operation changes were also intended to maintain/improve the continued enjoyment of lake-based recreational activities and waterpower production. As the SRSWMP is being implemented in two (2) Phases, effectiveness monitoring under Phase 1 will focus on those facilities with "enforceable" operation plans. However, this does not preclude monitoring of the facilities with "preliminary" operation plans, although, at these facilities monitoring efforts will be focused at establishing baseline conditions in most cases. Reporting on the results of data collection and of the effectiveness monitoring program will occur through submission of the Implementation Report, as outlined in Section 7.3.

6.1 DATA SHARING AND COMMUNICATIONS

A formal data sharing agreement will be established between MNR and Bracebridge Generation Ltd. to facilitate sharing of data collected during the SRSWMP. As part of that process, annual meetings will be

organized to discuss operational matters and improve efficiencies. The annual meeting will be scheduled at a time/place convenient to both MNR and Bracebridge Generation Ltd., to review the previous year's operations, identify operational strategies that worked well or caused problems, and develop a proactive, adaptive management style approach to communication, issue identification and resolution. The data sharing agreement will also include the following:

- *survey data for structures included in this plan*
- *stop log operation (including total number of stop logs after every stop log manipulation) and lake water level information for structures included in this plan*
- *ecosystem data that will be collected*
- *site specific bathymetric data that may be collected*
- *results from a hydrologic simulation model of the watershed that may be developed The proponent and MNR will also log public comments and/or complaints that are received relative to this plan.*

6.2 STAKEHOLDERS / STEWARDSHIP

It is recognized that Bracebridge Generation Ltd.'s operation of multiple dam facilities has (Parry Sound PowerGen Corporation Seguin River Simplified Water Management Plan Section 6 – Effectiveness Monitoring Program AMEC Earth & Environmental page 6-12) created impoundments that benefit the local community. This community has a considerable vested interest in the effective management of the reservoirs. Accordingly, in addition to the immediate stakeholders responsible for the SRSWMP, working arrangements/stewardship agreements will be pursued with other watershed stakeholders to assist with monitoring, data analysis and the filling of data gaps. A short list of the many potential partners includes the following organizations/groups:

- *Lorimer Lake Cottage Association*
- *McKellar Lakes Homes & Cottage Association*
- *Tait's Island Cottager's Association*
- *Manitouwabing Lake Community Association*
- *Manitou-Seguin Game & Fish Club*
- *Whitefish Lake Cottagers Association*
- *Seguin Township Associations & Ratepayers*
- *Isabella Lake Ratepayer's Association*
- *Southdale Property Owners / Duck Lake*
- *Tri-Lake Cottagers Association*
- *Municipality of McDougall*
- *McKellar Township*

- *McMurrich Township*
- *Township of Seguin*
- *Municipality of Whitestone*
- *Parry Sound Snowmobile District*
- *Parry Sound Nature Club*
- *McKellar Conservation Association*

Further, the proponent and MNR will log public comments and/or complaints that are received relative to facilities associated with both "Preliminary" and "Enforceable" Operating Plans.

F) Research the watershed associations who interact with Bracebridge Generation Ltd. and its parent company, Lakeland Holding Ltd. (Bracebridge Generation – Generations of Waterpower) Consider ways that their watershed maintenance activities could be replicated in the Seguin River watershed.

G) Consider acting in the context of the Seguin River Watershed, following the model of the Integrated Watershed Management - Muskoka Watershed Council .

Prepared by Jennifer Ghent-Fuller, Chair, Lake Stewardship and Environmental Committee of McKellar Township for consideration by the committee. Nov 4, 2021.

Attachments:

Seguin WMP Amended 2018 06 29 (Seguin-watershed-conditions-review-30-05-2017.pdf)

Terms of Reference SRSWMP Standing Advisory Committee (TofR-SRSWMP-SAC.pdf)

Seguin Watershed Conditions Review (Seguin-watershed-conditions-review-30-05-2017.pdf)