

# Summer Newsletter 2018

Muskrat Watershed Council

## Restoring the Natural Edge to Muskrat Lake



The Natural Edge program, developed by Watersheds Canada, aims to create healthy and resilient freshwater ecosystems by increasing the number of native plants existing along waterways. A healthy shoreline is an important indicator of the overall health of a freshwater ecosystem. For example, a healthy shoreline will assist in preventing erosion and providing habitat for aquatic and terrestrial wildlife species by including ample native trees and shrubs that provide

strong root systems and important habitat qualities, such as food and shelter. For the next 3 years, Watersheds Canada will work with the Muskrat Watershed Council, Algonquin College, and local landowners to help restore shorelines and streambanks in the Muskrat Lake Watershed by planting native trees and shrubs, thus creating healthy buffer zones in the region.

For Year 1 of the project, Watersheds Canada received additional funding to offer all participating landowners a free property assessment, planting plan and design, and free plantings. The project goal is to plant 45 000 trees and shrubs over 3 years within threatened areas or in areas where degradation is present. Algonquin College students are conducting property assessments this summer with Natural Edge Program Coordinator Chloe Lajoie. Plantings will start this fall with Algonquin College students, local volunteers, and anyone else who would like to help! If you or anyone you know is interested, please contact: [muskratwatershedcouncil@gmail.com](mailto:muskratwatershedcouncil@gmail.com) for more information.

**45 000 Trees and  
Shrubs Planted by  
2021**

**3 km of Shoreline  
Renaturalized**

**Fall Planting  
Volunteers  
Welcome!**



# Letter from the Chair

It has been a busy and exciting year for the MWC. For 2018, the MWC is partnering with Watersheds Canada and Algonquin College (Pembroke) to implement buffer strips throughout the Watershed, planting 25-hectares of streambank and shoreline combined, up to 45 000 trees and shrubs, over 3 years. For the first year (2018), farmers, homeowners and cottagers participating in the initiative will receive their property assessment, property design and native tree and shrub plantings for free. It is our hope that we can offer this service free in the second and third year as well, as we continue to search for funding to do so. May 2018 also saw the completion of our draft science report, written by Environmental Toxicologist, Dr. Rebecca Dalton. The draft report, which is now in the revision stages, interpreted data collected from the Ministry of Environment and Climate Change 'Water Quality Monitoring Network' in the Muskrat Lake Watershed for 2015, 2016, and 2017. Algonquin College co-op students

conduct sampling of this network during the summer and fall months. This year marks the 5th year of sampling! A big thank you to Jp2g Consultants, Inc. for donating funds to make the completion of this report possible. Looking back at 2017, MWC and Algonquin College successfully delivered the Love Your Lake program on Muskrat Lake. Watersheds Canada and Algonquin College summer coop students assessed 300+ shoreline properties on Muskrat Lake. In April 2018, every cottager and homeowner on Muskrat Lake would have received their personalized Love Your Lake report, which provided an overview of the health of their shoreline, including suggestions on how certain changes to their shoreline can help improve water quality and overall ecosystem health. Watersheds Canada also released a generalized lake report for Muskrat Lake, which you can find on our website: [www.musktratwatershedcouncil.com](http://www.musktratwatershedcouncil.com) Another big feat for 2017 was installing the laminar flow aeration

unit at Cobden Beach, a technology sold by Weeds B Gone. We hope that over the next 3 to 5 years, this system will improve the swimming conditions of Cobden Beach, so that residents can enjoy it throughout the entire summer. For more information on this project, please visit our website, or read on! In closing, we would like to thank all of our supporters. We look forward to seeing what plans and projects we can muster in the next year. As always, we hope you will join us in our efforts!

Warm Regards,

Karen Coulas



## Annual General Meeting

Our Annual General Meeting is to be held on August 16th at 6:30 pm at the Whitewater Region Township Office. Parking and entrance is at the back of the building.



# Cleaning Up Cobden Beach

In an effort to help address the issue of regular and prolonged beach closures due to bacterial contamination and blue-green algal blooms in Muskrat Lake, the Muskrat Watershed Council initiated a beach cleanup project in September 2017 to improve the water quality at Cobden Beach so local residents and visitors can once again use the beach for swimming and other activities. This project uses an aeration system in combination with a biological enzyme treatment. The aeration system uses six outlets installed underwater in the substrate that deliver oxygen to areas deprived of oxygen due to stratification. Stratification is characterized by a layered water column where each layer has different characteristics of dissolved oxygen, temperature, density, etc. This oxygen is circulated throughout the water column and allows water to mix, reducing algae and excessive plant growth.



From the beach, this looks like six areas of bubbling water. The aeration system is turned off when ice begins to form on the lake and resumes in the spring when the ice begins to melt. The biological treatment uses vegetable enzymes and minerals that act as catalysts for existing microbes in the water to biodegrade organic matter, reducing the nutrients available for algae and excessive plant growth. It also reduces any foul odors caused by the bacteria. This enzyme treatment is injected into the aeration system regularly. This project was possible with the help of Whitewater Township, MWC paid members, and donations from our fundraising events. Currently, MWC's Director of Tourism and Recreation (and all-around handyman), Andy Laird, is maintaining the system. Aeration is a longer-term solution, meaning it may take 3-5 years before we can observe noticeable improvements in the water quality. The MWC is confident this project will be successful in the coming years and will bring the community together again at Cobden Beach. Thank you again to everyone who helped make this possible!



## New Director of Media and Communications



Megan Rae is the bright new face behind our social media and communication platforms. Megan was born and raised on a small dairy farm in Southwestern Ontario, but moved in 2011 to Ottawa to pursue post-secondary education. In 2017, Megan decided to move to Cobden to pursue more education, enrolling in the Environmental Technician program at Algonquin College (Pembroke).

Despite her love of the sciences, Megan has a very artistic background. Her artwork has been featured at local art galleries and she holds a Diploma in Photography from Shaw Academy. In recent years, Megan has applied her skills to graphic and media design, designing websites, blogs, and logos, as well as other interpretive products, such as brochures, posters, and booklets. Megan is looking forward to keeping the community informed on all the current and upcoming projects and events happening with the Muskrat Watershed Council.

# Love Your Lakes Survey Results

All property owners on Muskrat Lake would have received their personalized Love your Lake Shoreline Assessment Report in April 2018. If you live on Muskrat Lake and did not receive a personalized report, please contact Karen Coulas at [musktratwatershedcouncil@gmail.com](mailto:musktratwatershedcouncil@gmail.com), and be sure to include your full name and property address. Love Your Lake also released a Muskrat Lake Values Survey to gauge the opinions and concerns of Muskrat Lake residents. Key sections of the values survey included, but are not limited to: 1) Recreation 2) Top Issues Facing Muskrat Lake 3) Perceived Water Quality Concerns. Within the “Top Issues Facing Muskrat Lake” bracket, 87% of respondents voted for water quality, 49% voted for water levels, and 28% voted for fish populations. In the other brackets such as “Top Water Quality Concerns” respondents attributed the water quality to algae/aquatic vegetation, bacteria, and clarity.

The largest correlation throughout the survey was that people are concerned with the water quality of Muskrat Lake. In addition, a number of landowners felt they did not know enough about what they could do to assist in rectifying some of the problems with Muskrat Lake. For this reason, the Muskrat Watershed Council developed a booklet titled “What YOU Can Do for Muskrat Lake” to provide landowners, farmers, and municipalities with some key information on how they can help improve the water quality of Muskrat Lake. You can find this on Facebook, our webpage, or you may have received it by email or by mail if you are a member.

We would like to thank Watersheds Canada and the Canadian Wildlife Federation for compiling the results, as well as all the respondents for taking time to complete the survey.

## Top Issues Facing Muskrat Lake

### Survey Results

87% WATER  
QUALITY

49% WATER  
LEVELS

28% FISH  
POPULATIONS

## New Director of Science and Water Quality



Dave Thomassin is a Muskrat Lake waterfront resident and has lived in the Ottawa Valley since 2008, initially working for the military as an ammunition technician. In 2012, he began working with GEMTEC, an environmental consulting company, where he conducted the clearance of unexploded ordnance. This position initiated his interest in environmental work. Dave graduated from the Environmental Technician program at Algonquin College in 2017 and is now currently back in school for the summer taking the Environmental Management and Assessment program. He is also licensed in pyrotechnics and organized the fireworks at the Alice and Fraser winter carnival in 2018. Dave is an avid fisherman who enjoys spending his days on Muskrat Lake, researching and learning about the Watershed's dynamic ecosystems and volunteering with the Muskrat Watershed Council.



# Meet Our 2018 Summer Students



Spencer Hunt is enrolled in the Environmental Technician program at Algonquin College in Pembroke, set to complete the program by December 2018. Spencer's co-op position is the result of Canada Summer Jobs funding awarded to the Muskrat Watershed Council for summer 2018. Spencer will be working alongside Megan Rae on sampling the MOECC Water Quality Monitoring Network and undertaking shoreline and streambank assessments with Watersheds Canada and Algonquin College. Growing up in the country on the banks of the St. John River outside of Fredericton, N.B., Spencer fell in love with the outdoors, regularly partaking in activities like mountain biking, hiking, camping, fishing and kayaking. Spencer works hard to achieve good grades and hopes to one day have a career that aims to protect and conserve our natural landscapes for everyone to experience and enjoy.

Megan Rae is also a second-year student in the Environmental Technician program at Algonquin College. She gained appreciation for the outdoors and the environment while growing up on a small dairy farm in Southwestern Ontario. In her spare time, Megan volunteers with the Water Rangers, Bird Studies Canada and the Muskrat Watershed Council. Her favourite hobbies include kayaking, hiking, horseback riding and fishing.

SOCIAL MEDIA  
**PHOTOGRAPHY**  
*Contest Winner*

Congratulations to Traudy Tremblay on winning our Sunsets From Our Shores photography contest! Thanks goes out to all those who submitted their images via Facebook, Twitter and Instagram!



Photo Taken By Traudy Tremblay of Muskrat Lake near Rossel Trail



# Thanks

A huge thank you to all the individuals that volunteered their time and knowledge on projects and events this past year. The Muskrat Watershed Council would also like to thank all those who donate to our cause. Without your contributions, many of our projects and events would not have been possible. With your support and encouragement, we will continue to raise awareness and advocate for the health of our Watershed.

# Contact Us

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## Monthly Meetings



If you are interested in knowing more about what we are doing in the local community, or wish to volunteer your time, our regular monthly meetings happen every third Thursday of the month at 6:30pm at 44 Main Street Cobden ON, K0J1K0. Parking is behind the building and enter through the back door into the basement. All are welcome!