



2017 ANNUAL REPORT



## **LAKEHEAD REGION CONSERVATION AUTHORITY**

The Lakehead Region Conservation Authority (LRCA) is a community-based environmental agency. We are responsible for the wise management of renewable natural resources in our watershed. Conservation Authorities undertake a broad range of programs, including: watershed management, erosion control, flood forecasting and warning, recreation and land management, water level monitoring, plan input and review, environmental education, community outreach and stewardship. The LRCA's Area of Jurisdiction includes over 2,700 square kilometres, and is comprised of our eight Member Municipalities.

## **BOARD MEMBERS**

Donna Blunt, Chair *Municipality of Shuniah* 

Ken Boshcoff, Vice-Chair City of Thunder Bay

Grant Arnold Township of Conmee

Ed Chambers *Township of Dorion* 

Wendy Wright *Township of Gillies* 

Erwin Butikofer *Municipality of Neebing* 

Jim Vezina *Township of O'Connor* 

Jim Byers Municipality of Oliver Paipoonge

Andrew Foulds City of Thunder Bay

Umed Panu City of Thunder Bay

Linda Rydholm City of Thunder Bay

#### **STAFF**

Tammy Cook Chief Administrative Officer

Simon Shankie *Watershed Manager* 

Mark Ambrose Finance Manager

Ryne Gilliam Field Operations Supervisor

Ryan Mackett Community Stewardship/Public Relations Officer

Melanie O'Riley Administrative Clerk/Receptionist

Gayle Little Finance/Administrative Assistant

Roman Augustyn SWP GIS/Data Specialist

Scott Drebit GIS Technician/Planner

Michelle Sixsmith Water Resources Technologist

Gene Kent Education/Special Projects Coordinator (Contract)

Dave Olson *Field Operations Lead Hand (Seasonal)* 

Randy Kelly Labourer (Seasonal)

Various seasonal, contract and intern positions are also filled, as needed, on an annual basis.

Cover Photo: A Rough-Legged Hawk at Hazelwood Lake Conservation Area.





## A VISION, A MISSION AND A PLAN

## **Our Vision and Our Mission**

In 2017, the LRCA adopted a vision and mission statement, which will act as the guiding light for the organization.

## **VISION:**

A healthy, safe and sustainable Lakehead Watershed for future generations.

## **MISSION:**

To lead the conservation and protection of the Lakehead Watershed.

## A Trail Map for the Next Five Years

During 2017, the LRCA embarked on the process to create its first strategic plan, which will play an important role in shaping the LRCA's planning, decision-making and collaboration with community partners over the five-year period from 2018 to 2022. The LRCA contracted Arbora Management Services, a Thunder Bay-based organization, to facilitate the planning process and to assist the LRCA to develop a relevant and implementable plan which will be outlined later in this report. As part of the strategic planning process, various consultation sessions occurred, including staff, management and Board sessions, community partner and stakeholder sessions, a public consultation and an online survey. In total, 258 individuals directly contributed to the strategic plan process. The strategic plan will act as a trail map for the LRCA over the next five years and, along with the new vision and mission statements, help shape the future of the organization and its commitment to the Lakehead Watershed and its residents.

#### 2017 Business Excellence Awards

The LRCA was extremely proud to be the recipient of the Environmental Stewardship Award, presented by Ontario Power Generation at the 2017 Thunder Bay Chamber of Commerce Business Excellence Awards.







# **CONSERVE & SUSTAIN**

Enhance the management and sustainability of natural habitats and ecosystems through an integrated approach.

## **INITIATIVES:**

- Support, strengthen and encourage environmental stewardship and sustainability.
- Manage future growth through a systematic evaluation of assets and landholdings.
- Collaborate with member municipalities and community partners to foster an integrated watershed management approach.
- Optimize decision-making by sharing data and knowledge.





## **CONNECT & EXPLORE**

Maximize intergenerational educational, engagement, and recreational opportunities through strong collaborations.

## **INITIATIVES:**

- Emphasize a sense of place through positive and equitable interactive experiences.
- Develop a communications strategy to engage diverse stakeholders.
- Strengthen a shared interest in conservation through collaboration with existing and new partners.
- Manage recreational areas for current and future generations.



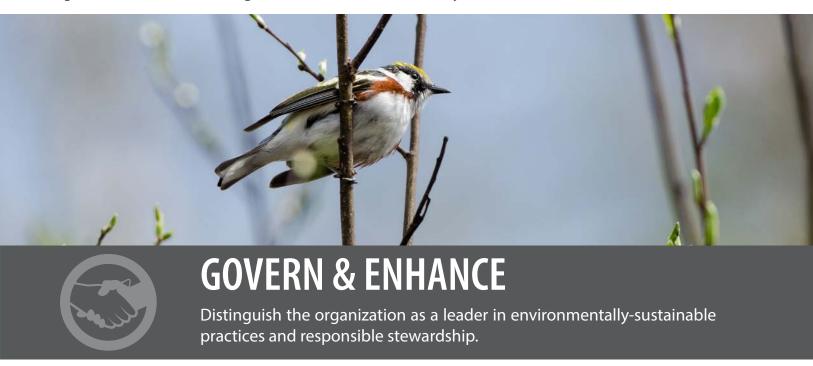


## **PROTECT & SUPPORT**

Safeguard people, property and communities through robust watershed management.

## **INITIATIVES:**

- Increase awareness of the impacts of floods and hazards and the importance of mitigation.
- Demonstrate effective land use planning and emergency flood management through a collaborative approach.
- Maintain and enhance flood control infrastructure to minimize the impacts of flooding, erosion, and sedimentation.
- Evaluate the priorities for the protection and management of wetlands and natural heritage features.
- Integrate the impacts of climate change into future actions.
- Align watershed decision-making with stakeholders outside of the jurisdiction.



## **INITIATIVES:**

- Optimize organizational performance through policy and measurable actions to improve accountability and transparency.
- Build a resilient financial model based on capacity, capabilities and public expectations.
- Create a dynamic culture of learning, safety, and positivity.
- Increase awareness of Indigenous knowledge and practices for integration into organizational decision-making.

### **AROUND THE WATERSHED**

## Stewardship

The Private Landowners Tree Seedling Assistance Program was an incredible success in 2017, with 11,417 tree seedlings being planted. As a result of the program, approximately 137,666 seedlings have been planted in the Lakehead Watershed since the program's inception in 2009. The LRCA would like to thank the generous support of Hydro One in 2017 for their contribution to the program. The program will be offered in 2018 once again with the generous support of Hill's Greenhouses.

Through funding granted by the Great Lakes Guardian Community Fund (GLGCF), the LRCA worked with Breukside Dairy Farm on a river bank restoration and nutrient control project. The project seeks to reduce the runoff of pollutants into the Slate River by fencing off the river from cattle and restoring riparian zones.

This project was completed in cooperation with Ed and Aaron Breukelman, Thunder Bay Soil and Crop Improvement Association, North Shore Steelhead Association and the MNRF Youth Stewardship Rangers. Two kilometres of electric fencing was constructed and live-staking occured along sections of the river, as well as the installation of alternate watering systems required for the cattle. Ongoing monitoring of water quality will occur. The GLGCF project completed in 2016 was a stop on the 2017 Summer Farm Tour. An initial fish inventory was also conducted by MNRF biologists with assistance from the students from Sir Winston Churchill's International Baccalaureate Program.

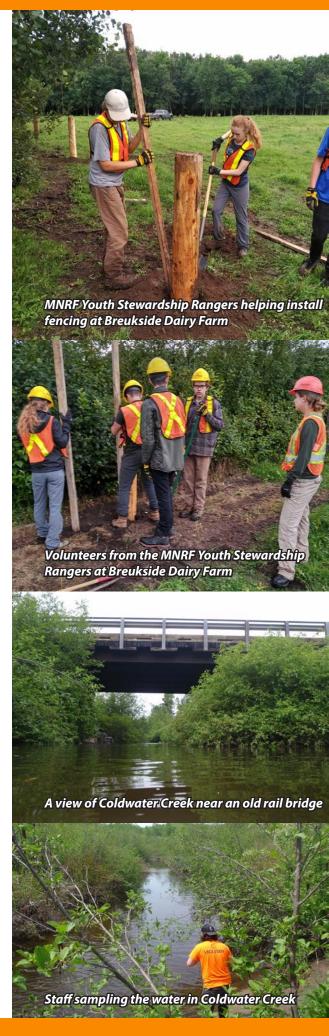
#### **Watershed Health**

Annually, a Watershed Assessment of a local river or stream is conducted by staff. In 2017, the Coldwater Creek Watershed was studied. The watershed drainage area covers 138.1 square kilometres within the Municipality of Shuniah, Township of Dorion and unorganized Township of Glen. Coldwater Creek is approximately 46.5 kilometres in length and travels from Wiggins Lake into Lake Superior. At the time of assessment, the Coldwater Creek Watershed was considered to be in excellent health. The full report is available on our website. In 2018, the Jarvis River Watershed, located within the Municipality of Neebing, will be the subject of the next watershed assessment.

Hazelwood Lake Conservation Area did not have any beach advisories posted in 2017. The last time a beach advisory was posted was in 2007.

During 2017 the LRCA utilized funding provided by the MNRF and hired certified wetland evaluators to assess un-evaluated wetlands within the McIntyre River Watershed. The MNRF have reviewed the findings, and have designated the 737 hectare Kivikoski Wetland as a Provincially Significant Wetland (PSW). The Kivikoski PSW is now included in the LRCA Approximate Regulated Area, and future development within the PSW and adjacent 120 metre buffer will require permits under O. Reg. 180/06 as administered by the LRCA.

The LRCA also initiated a study to update the 1987 Kam River Erosion Sites Inventory Study. The study will focus on the Kaministiquia River within the City of Thunder Bay to determine rates of erosion and to identify active erosion sites. This updated information will be used by the LRCA in processing permit applications and commenting on Planning Act applications.



#### WATERSHED MANAGEMENT

## **Planning and Regulation**

The LRCA is responsible for developing and maintaining programs that will protect life and property from natural hazards such as riverine flooding and erosion and to conserve and enhance natural resources. In this effort, *Ontario Regulation 180/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* regulates development in areas where the control of flooding, erosion, pollution or conservation of land may be affected. During 2017, a total of 43 permits were issued.

As part of its delegated responsibility, the LRCA reviews all *Planning Act* applications on behalf of its Member Municipalities to provide comments related to natural hazards. In 2017, comments were provided on 288 *Planning Act* applications. In 2017, staff provided over 982 property maps to local residents, lawyers, real estate agents, Member Municipalities and other agencies.

If you are planning on doing any type of work near a lake, river, stream, wetland or natural hazard within the LRCA Area of Jurisdiction, a permit from the LRCA may be required.

## Flood Forecasting and Water Level Monitoring

The LRCA monitors daily watershed conditions which help provide advance warning of high water levels, and in times of drought, low water levels. Depending on the severity of the weather and how high the water levels are, a Watershed Conditions Statement (Water Safety or Flood Outlook), Flood Watch or Flood Warning is issued to our Member Municipalities, emergency staff and the local media. During 2017, one Watershed Conditions Statement (Flood Outlook) was issued on April 5, 2017 in regards to ice jamming along the Whitefish River.

In 2017, the LRCA replaced its aging Flood Forecasting software with Water Information Systems by KISTERS (WISKI) software. The new internet-based software enhances the LRCA's ability to collect real-time streamflow levels and precipitation levels. The WISKI software package also includes an Alarm Manager which will send alerts to the LRCA when critical levels have been detected on area gauges.

Annually, the LRCA conducts snow surveys between November and May. Snow depth and weight (water content) are collected and forwarded to the MNRF's Surface Water Monitoring Centre as part of the Flood Forecasting Program.

The beginning of January Lake Superior water level was 34 centimetres above the 1918-2016 average, 20 centimetres higher than last year's January level, and was approximately 26 centimetres below the 100 year flood level. Water levels were 6 centimetres higher at this time in 1986, which is the only year that higher beginning of January levels have been recorded on Lake Superior since 1918.

## Floodplain Mapping

In 2017, work progressed on the floodplain mapping update of the Neebing River watershed, which included the completion of a LiDAR survey and completion of the Hydrology Technical Report. The project is scheduled for completion by March 31, 2018. The updated mapping will enable LRCA staff to utilize the information when they administer O. Reg. 180/06 and will also provide additional information to enhance the Flood Warning System. In addition, the data will be used in long term monitoring and planning associated with the Neebing-McIntyre Floodway. A public open house will be held in 2018 to present the findings to the public.

Funding has also been secured to update the floodplain mapping within the McVicar Creek watershed. This project is scheduled to begin in early 2018.

## Source Water Protection

The Lakehead Source Protection Authority (SPA) completed their Second Annual Report for the Lakehead Source Protection Plan covering the period of January 1, 2016 to December 31, 2016. The report concluded that all the policies within the Plan were either implemented or were in the process of being implemented. Moving forward, reports on the progress of the Plan are due to the Province by May 1st covering the previous year. The Second Annual report can be found at sourceprotection.net.

#### **CONSERVATION AREAS**

Mission Island Marsh\*
Hazelwood Lake
Cedar Falls
Little Trout Bay\*
Cascades
Hurkett Cove\*
MacKenzie Point\*
Silver Harbour\*

Our Conservation Areas offer five\* access points to Lake Superior; boat launches at Silver Harbour and Little Trout Bay, over 22 kilometres of trails on over 2,500 hectares of Conservation Lands and picnic shelters, pavilions, interpretive panels, outdoor privies and barbecue grills (at certain Areas).

The LRCA pays property taxes on its Conservation Lands, and is required to carry liability insurance on those properties. Explore Card sales and \$2.00 per vehicle parking fees help offset the costs of owning, operating and maintaining these beautiful Conservation Areas.

Unique trails await you at Mission Island Marsh, Cedar Falls, Cascades, Hazelwood Lake, Little Trout Bay and Hurkett Cove Conservation Areas. The trails at each of these Areas offer their own distinct qualities, and range from a short stroll through the woods to a longer hike over picturesque terrain. Snowshoeing is also popular at several Areas, so don't let the cold weather keep you from exploring!

We would like to remind visitors that there are certain Regulations in place to ensure the safety and well-being of our visitors, as well as to protect the environmental health of the Areas. Please do not leave trash along the trails, ensure pets are on-leash at all times and picked up after and remember that alcohol, fires and overnight camping are prohibited. Please visit our website for a full listing of the Conservation Areas Regulations.

If you or your organization would like to host an event in a Conservation Area, please fill out a Land Use Request Form (found on our website) and submit for approval.

"Take nothing but pictures, leave nothing but footprints!"



#### **AREAS UPDATE**

Mission Island Marsh Conservation Area received some upgrades during 2017. The LRCA was the recipient of a Canada 150 Community Infrastructure Program (CIP 150) grant, which allowed for the paving of a 585 metre AODA-compliant, wheelchair accessible loop trail. A wheelchair accessible viewing scope and bench were also installed as part of the project, along with a new trailhead sign. The LRCA would also like to acknowledge Ontario Power Generation's financial contribution to the project. Erosion mitigation and some boardwalk repairs also occurred at Mission Island Marsh Conservation Area throughout 2017.

As identified in the LRCA's Asset Management Plan, the guardrails along the causeway at Hazelwood Lake Conservation Area were replaced in 2017.

Throughout the summer of 2017 LRCA staff removed 2,690 kilograms of debris from the Neebing-McIntyre Floodway and sections of the Neebing River and McVicar Creek. The majority of this debris was garbage, shopping bags, discarded timber, tires, shopping carts and food, beverage and alcohol containers.

Some of the more obscure items removed from local waterways included chairs, safety boots, a damaged toilet, a tent, a dog crate, glass pipes, baseball bats and a suitcase full of undergarments and wigs.

Staff encountered a significant increase in vandalism and odd behaviour in our Conservation Areas during 2017. Fires in the parking lot at Mission Island Marsh, bottles left in trees, a large number of signs ripped down and destroyed and graffiti on the rocks at Silver Harbour in addition to the usual garbage and day-to-day maintenance kept the summer seasonal crews busy. Also, over 25 birch trees were completely stripped of their bark at Hazelwood Lake Conservation Area, and will likely die as a result. Please note that harvesting of any kind is strictly prohibited in Conservation Areas. We encourage visitors to follow the motto: "take nothing but pictures, leave nothing but footprints".

A public open house was held on August 24 to discuss planned operations at Wishart Forest as part of the LRCA's Forest Management Plan (FMP) for that property. Wishart Forest is located on Onion Lake Road in the Township of Gorham, and is owned, operated and maintained by the LRCA. KBM Resources Group was retained by the LRCA to update the existing Wishart FMP.

The primary objectives of the FMP include environmental protection, recreation/education and potential income generation to offset costs to maintain the area. Short-term goals of the plan include maintaining a healthy forest, increased watershed protection, improved wildlife habitat, trail maintenance, public safety and forest fire prevention. Long-term goals of the plan include expanded recreational opportunities as well as some planned small-scale strategic harvest operations in order to enhance and maintain the health of the forest.



#### **COMMUNITY OUTREACH**

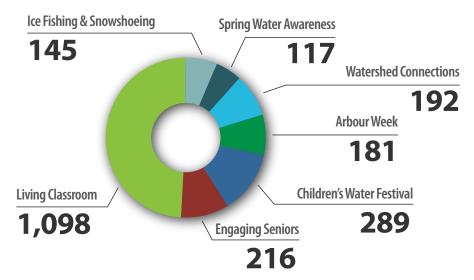
### **Environmental Education**

Education plays a large role in the LRCA's efforts to spread positive conservation and stewardship messages. Program topics include: orienteering, biodiversity, insects, animal tracking, pond studies and many others. Participants are engaged through outdoor experiences and "in-class" presentations.

The LRCA's Engaging Seniors in the Outdoors program continued in 2017 with much success; the LRCA will be offering similar programs in 2018.

A total of 2,216 participants from different user groups (including school classes, health centres and senior groups) took part in our Environmental Education and Outreach Programming.

## **EDUCATION PROGRAM PARTICIPANTS**



## **Partnerships and Sponsors**

Partnerships and sponsorships are vital in enabling the LRCA to accomplish many valuable projects in the watershed. The LRCA would like to thank the following sponsors for their generous contributions in 2017:

- Ontario Power Generation
- Hvdro One
- Hatch Corporation
- TD Friends of the Environment Fund
- Ministry of the Environment and Climate Change
- Ministry of Natural Resources and Forestry
- Government of Canada (FedNor)
- National Disaster Mitigation Program
- Union Gas Helping Hands in Action
- Great Lakes Guardian Community Fund
- Hills Greenhouse
- EcoSuperior
- Thunder Bay Field Naturalists
- Upriver Running
- And many more community partners, local businesses and local organizations

The LRCA is excited to work with these partners again in 2018, as well as to continue to grow new collaborations with community partners into the future.



#### COMMUNITY INVOLVEMENT

#### **Volunteers**

The LRCA greatly values our volunteer community, which is made up of community members, employees of sponsoring businesses, local retirees, university and high school students, 55+ Centre members, etc. These volunteers assist the LRCA with data collection, environmental education programs, special events, fundraising initiatives, etc. Volunteer opportunities vary throughout the year depending on programs, projects and funding allocations.

The LRCA also relies on the expertise of local experts such as Brian Ratcliff for our annual Fall Waterfowl Viewing Day and Dr. Leonard Hutchison for our Fall Mushroom Hike. The continued involvement of these individuals, along with other local experts and members of the Thunder Bay Field Naturalists, enables the LRCA to provide the community with quality programming. If you are interested in volunteering with the LRCA or LCF, please visit our website and complete the online volunteer application.

#### **Events**

The LRCA had a busy event schedule in 2017. Some of the events hosted included the Cascades Winter Adventure, a photography workshop, Hazelwood Lake Family Fun Day, Silver Harbour Day, the Trails & Tails Adoption Fair, Fall Waterfowl Viewing Day and more! Turnout for LRCA-hosted events in 2017 nearly tripled the attendance numbers from 2016, thanks in part to social media, as well as the incredible new partnerships between the LRCA and other organizations such as EcoSuperior, The Nature Conservancy of Canada, the Thunder Bay Field Naturalists, Lakehead University, Ontario Nature, the Ministry of Natural Resources and Forestry, Criss Cross Racing, Skyline Falconry, Wilderness Supply, Gear Up for Outdoors, Canada Coast Guard Services, Ontario Provincial Police, the Municipality of Shuniah, City of Thunder Bay Animal Services, many local dog and cat rescues and animal welfare groups and others. Thank you to our partners and a special thanks to the community for coming out and making the 2017 event season a success. Keep an eye on our website and social media channels for information about the exciting plans for 2018!

## **Community Garden and Greenhouse**

The LRCA continued its partnership with the Regional Food Distribution Association (RFDA) through the Lakehead Conservation Community Garden and greenhouse project. RFDA staff, along with volunteers from the local United Steel Workers planted and maintained the garden and greenhouse throughout the 2017 growing season. Volunteers from Sodexo Canada also contributed to the initial planting of the community garden. The LRCA looks forward to continuing this productive relationship in 2018.







## **NEEBING-MCINTYRE FLOODWAY**

The Neebing-McIntyre Floodway consists of three main components: the Diversion Structure; the Diversion Channel; and the widened and deepened Floodway Channel that outlets into Lake Superior, which purpose is to provide riverine flood protection to the lower Neebing River and Intercity area.

The Neebing-McIntyre Floodway does not need to be turned on in order to operate. Everything works automatically. During high water events the Floodway operates without any required actions. The Diversion Structure limits flows down the lower Neebing River and diverts excess flows into the 1.5 kilometre Diversion Channel which directs excess flows to the widened, deepened Floodway Channel to Lake Superior. As part of the Floodway's operation, maintenance dredging needs to occur every 20 years or so, depending on sediment buildup. Two sediment traps are also required to be emptied approximately every 10 years. This maintenance ensures that the Floodway remains operational and capable of handling rainfall up to and including the Regional Storm. The LRCA also hires two seasonal staff annually to undertake routine Floodway maintenance such as grass cutting, brushing, etc.

The Neebing-McIntyre Floodway diversion structure diverted water from the Neebing River on two occasions during 2017: April 3 to 5 for a period of approximately two days, and May 2 to 7 for a period of approximately five days, for a total of seven days throughout the year.

During 2017, the removal of sediment from the lip of the Diversion Channel occurred to ensure that the Floodway operates as designed. In total, 2,811 cubic metres of sediment was removed. This routine removal is scheduled for every four years, and will be conducted again in 2021 (or as warranted).











#### LAKEHEAD CONSERVATION FOUNDATION

The Lakehead Conservation Foundation (LCF) raises funds for the LRCA's Land Management and Environmental Education programs. Funds are raised through several events held during the year, including the Annual Conservation Dinner and Auction and Wine Tasting and Dinner at Whitewater. The 2017 Fundraising Dinner and Auction was held on February 9, 2017 and raised over \$18,500.00.

Long-time LCF Member and former LRCA Board Member Doug Guinn sadly passed away in August of 2017. Doug was a dedicated member of the Lakehead Conservation community, and his contributions to both the Foundation and the Authority over the years have been substantial. Doug will be dearly missed by everyone who had the pleasure of knowing and working with him.

LCF President Andrea Goold presented LRCA Chair Donna Blunt with a cheque for \$20,000.00 during 2017's annual LCF cheque presentation. If you or someone you know is interested in volunteering or becoming a Foundation Member, contact the LCF at (807) 345-2377.



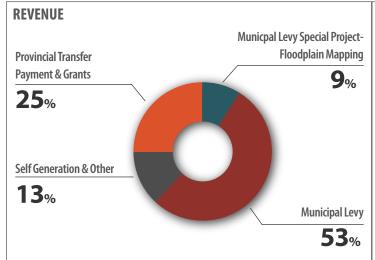


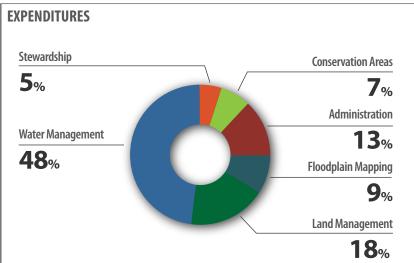
## **LCF MEMBERS**

Andrea Goold, President
Shelly Brown, Vice-President
Vacant, Secretary
Mary Provenzano, Treasurer
Allison Bannister
Ken Boshcoff
Mary Creed
Andrew Dubinsky
Doug Guinn
Dr. Bradley Jacobson
Erin Knight
Virginia Lane
Reba Macdonald
Kestrel Wraggett
Wendy Wright

## **2017 FINANCIAL REPORT**

The LRCA's budgeted 2017 revenue and expenditures totaled approximately \$2,662,018.00. Revenue is derived from three primary sources: Provincial/Federal Government Grants, Municipal levies and self-generation (comprised of user and parking fees, partnerships, donations and sponsorships). Source Water Protection activities are 100% Government funded. The LRCA gratefully acknowledges the support of clubs, agencies and businesses, the Lakehead Conservation Foundation and individuals making direct donations for making 2017 a successful year. The LRCA relies on grants, donations and other outside funding for its Environmental Education Program, and as such certain public events have fees attached. The LRCA is a registered charity, capable of issuing charitable tax receipts. It is important to note that the time donated by volunteers is not factored into our operating costs, although their time and expertise is formally acknowledged in this Annual Report.



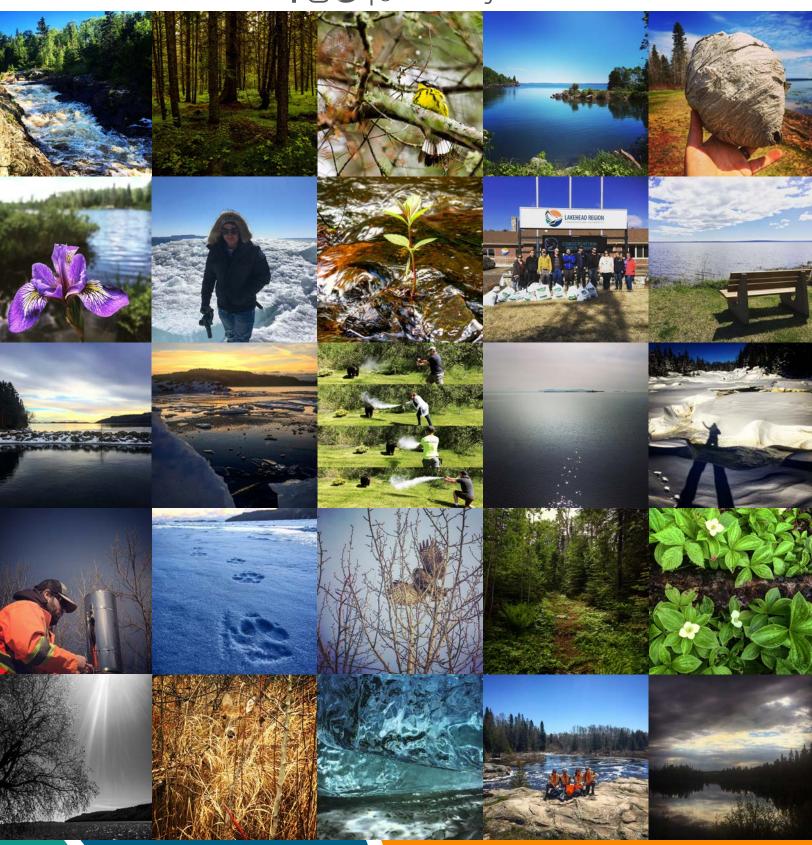


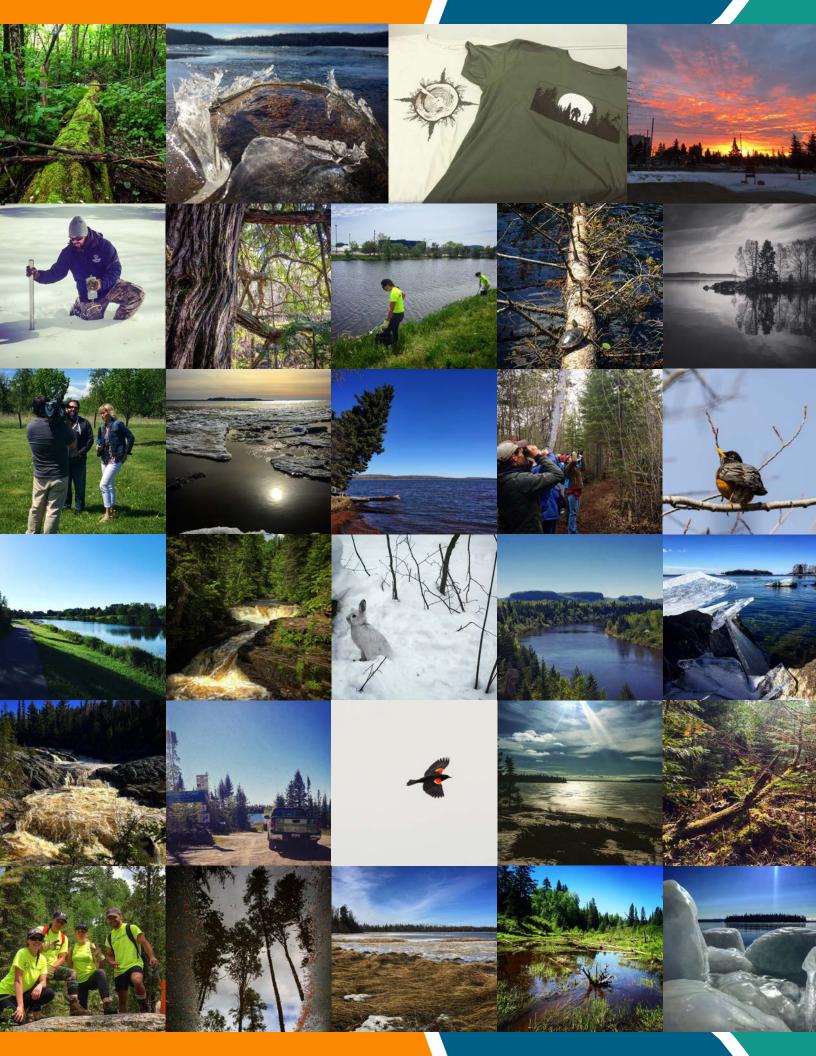
## THE LRCA IS SOCIAL!

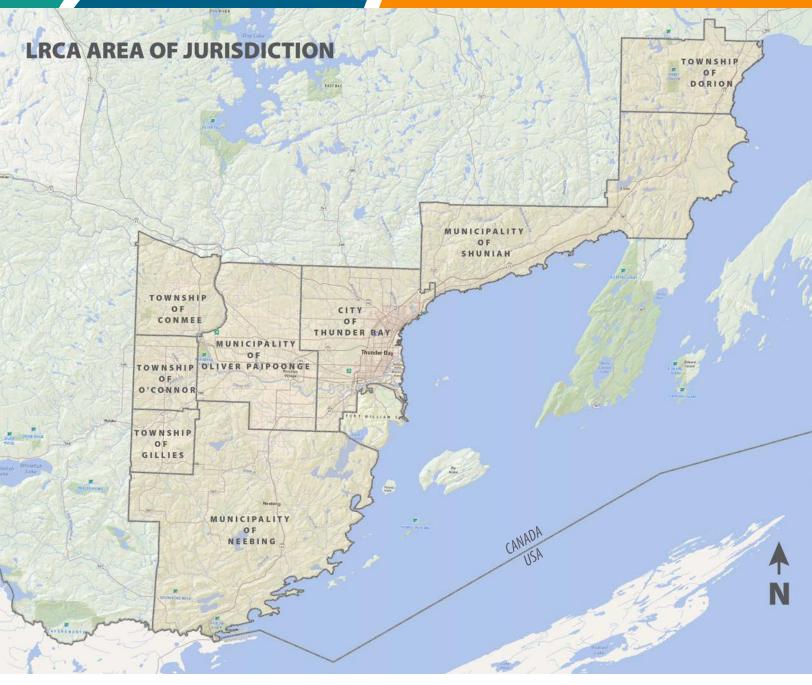
## Follow us on Facebook, Twitter and Instagram @lakeheadregion.

The LRCA has been very active on social media during 2017. Our first year utilizing Facebook, Twitter and Instagram has been very successful, and we would like to thank all of our followers for taking the time to like, share, repost and offer feedback in creative, productive ways. If you aren't connected with us yet, be sure to look us up. The following photos represent the LRCA's first "connected" year! (All photos taken by LRCA staff.)

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"CONSERVE TODAY ... FOR A BETTER TOMORROW"



## **LRCA ESTABLISHED 1954**

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