



LAKEHEAD REGION CONSERVATION AUTHORITY
2019 ANNUAL REPORT





A Double-crested Cormorant at Mission Island Marsh Conservation Area.



Hazelwood Lake Conservation Area

LAKEHEAD REGION

CONSERVATION AUTHORITY

VISION

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

MISSION

To lead the conservation and protection of the Lakehead Watershed.



11 BOARD MEMBERS

Donna Blunt, Chair **Municipality of Shuniah**
Grant Arnold, Vice-Chair **Township of Conmee**
Ed Chambers **Township of Dorion**
Rudy Buitenhuis **Township of Gillies**
Erwin Butikofer **Municipality of Neebing**
Jim Vezina **Township of O'Connor**
Allan Vis **Municipality of Oliver Paipoonge**
Andrew Foulds **City of Thunder Bay**
Trevor Gieruga **City of Thunder Bay**
Andrea Goold **City of Thunder Bay**
Umed Panu **City of Thunder Bay**

13 STAFF MEMBERS

Tammy Cook **Chief Administrative Officer**
Gail Willis **Watershed Manager**
Mark Ambrose **Finance Manager**
Ryne Gilliam **Lands Manager**
Ryan Mackett **Communications Manager**
Melanie O'Riley **Administrative Clerk/Receptionist**
Gayle Little **Finance Administrative Assistant**
Roman Augustyn **Information Systems Coordinator**
Scott Drebit **GIS/Water Resources Technologist**
Michelle Sixsmith **Development Regulations Officer**
Gene Kent **Education Coordinator (Retired)**
Dave Olson **Field Operations Lead Hand (Seasonal)**
Randy Kelly **Labourer (Retired)**
Various seasonal, contract and intern positions are also filled, as needed on an annual basis.

Message from Tammy Cook, LRCA CAO

Over the past year the LRCA has made great strides towards achieving the initiatives set out in the Authority's Strategic Plan. The completion of the McVicar Creek Watershed Floodplain Mapping Update project, Kaministiquia River Erosion Sites Inventory Update and wetland evaluations in the Neebing and Mosquito Creek watersheds will assist in safeguarding people and property from the perils of flooding and erosion. The first step in protecting people and property from natural hazards is knowing where the hazards exist. Additionally, completed major maintenance dredging on the Neebing-McIntyre Floodway in 2019 will ensure that the Intercity area and Lower Neebing River residents continue to be protected from flooding up to the magnitude of the Regional Storm.

Our continued commitment towards a robust health and safety program and transparency lead to the creation of additional policies and training for all staff. Also, a commitment to growing and enhancing partnerships with like agencies and Indigenous groups has led to a new trail connection to the Nature Conservancy of Canada's James Duncan Nature Trail, meaningful engagement with local Indigenous groups and partnerships which resulted in collaborative educational opportunities and Medicine Walks.

This past year also marked the end of an era with the retirement of our founding Source Protection Committee Chair, Mr. Bob Hartley, who is also a past Chair of the Lakehead Region Conservation Authority. His leadership led the way to meeting the objectives of the program since inception, as well overseeing the completion of the first approved Source Protection Plan in the province. Mr. Hartley has been replaced by Ms. Lucy Kloosterhuis, who is a past member of the Source Protection Committee as well as the long-standing Mayor of the Municipality of Oliver Paipoonge. We welcome Lucy and are confident in her leading the program in the future.

Even though the past year presented some unique challenges in relation to government oversight and funding, it was a year that confirmed that one's ability to succeed is measured by one's ability to adapt and that change is inevitable. The staff at the Authority believe in our mission and vision and will continue to provide the programs that will ensure a healthy, safe and sustainable Lakehead Watershed for future generations.

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.

Cover Photo: The Sleeping Giant at Mission Island Marsh Conservation Area.





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.



Photos (left to right): LRCA staff conducting bathing beach water sampling at Hazelwood Lake; Ocean Bridge youth delegation preparing for a bio-inventory of Hurkett Cove; LRCA staff tree planting at Wishart Forest; sustainable forest management at Wishart Forest; the wetland area at Wakefield Common; beaver dam on the Little Pine River.

Updates to floodplain mapping continued in 2019 through funding provided by the Federal National Disaster Mitigation Program and the City of Thunder Bay to update the 1995 McVicar Creek Floodplain Mapping. This updated mapping will be used by the Authority in the administration of the Development Regulations as well as by the City in their Official Plan and Zoning by-law, and replaces the 24 year old McVicar Creek floodplain mapping. By 2020, all previously completed floodplain mapping will be updated.

Evaluation of wetlands continued in 2019: the Neebing River Watershed Wetlands and Mosquito Creek Watershed Wetlands were both evaluated. The wetland evaluations confirmed the boundaries of the wetlands in the respective watersheds, which were incorporated in the Authority's approximate regulated area. The goal is to identify and confirm the boundaries of all wetlands within the LRCA Area of Jurisdiction. All collected data is shared with the applicable member municipalities and Ministry of Natural Resources and Forestry.

Sustainably managed selective harvesting continued in Wishart Forest during 2019, as per the Operational Forest Management Plan for the area. A mixed age forest remains as the eventual goal for Wishart Forest.

Watershed assessments of the North Current River Watershed (located within the City of Thunder Bay, Municipality of Shuniah and unorganized areas) and Little Pine River Watershed (located within the Municipality of Neebing) were completed in 2019. Various water and soil samples were obtained from the sampling locations within the watersheds. The North Current River Watershed Assessment deemed that watershed to be in overall excellent health, and the Little Pine River Watershed Assessment deemed that watershed to be in good overall health.

Once again, the LRCA partnered with Hill's Greenhouses Ltd. for the Private Landowner's Tree Seedling Assistance Program. Over 8,300 seedlings were planted during 2019, raising the total number of seedlings planted as part of the program since its inception in 2009 to over 151,300 tree seedlings.

During 2019 a piece of property known as Wakefield Common was donated to the LRCA. The donation was made in memory of Amy Constance Wakefield (1883 - 1963), Philip Wakefield (1878 - 1952), Catherine (Kay) Wakefield (1920 - 2016) and Harry Wakefield (1923 - 1979). The property features floodplain and wetlands and is home to many different species of flora and fauna.

8,348 TREE SEEDLINGS
PLANTED IN 2019

In partnership with Hill's Greenhouses Ltd.

HECTARES OF FLOODPLAIN
MAPPING UPDATED **4,530**

*McVicar Creek Floodplain Mapping
was updated during 2019.*

3,858 HECTARES OF
WETLANDS EVALUATED

*The Neebing River and Mosquito Creek Watershed
Wetlands Evaluation were completed during 2019.*

HECTARES OF
WATERSHED ASSESSED **14,480**

*The North Current River and Little Pine River
Watersheds were assessed during 2019.*



8 Member
Municipalities

+2,700 km²
Area of Jurisdiction

+151,000

Trees planted through
the Private Landowners
Tree Seedling
Assistance Program



Hummingbird in the pollinator garden at the LRCA Administrative Office.



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.



Photos (left to right): spring tipping bucket inspections; washout on Highway 588 during June flooding event on Whitefish River; maintenance of weather station in Township of Dorion; maintenance sediment dredging on the Floodway; testing turbidity along the Floodway; erosion at Mission Island Marsh.

The safety of the residents of the Lakehead Watershed is of paramount importance to the LRCA, along with the protection of property, specifically related to the hazards of riverine flooding, erosion concerns and through the administration of development regulations, which directs development away from natural hazards.

Along with the protection of life and property from flooding and erosion hazards, the LRCA also protects shorelines, watercourses, wetlands and fill regulated areas through the administration of Ontario Regulation 180/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses under the *Conservation Authorities Act* within our Area of Jurisdiction.

In 2019, the 1987 Kaministiquia River Erosion Sites Inventory Report was updated. The study assessed the 100-year erosion hazard limit, which estimates where the top of bank along the river will be in 100 years. This data is used in the delineation of the approximate regulated area that is used by the Authority in the administration of the Development Regulations. This data along with the estimated floodplain data is used to direct development outside of hazards.

During the year the LRCA issued several flood messages/message updates including: five Flood Outlook Watershed Condition Statements; four Lake Superior Shoreline Flood Watch Messages; and two Flood Warning Messages related to one flood event on the Whitefish River. Flooding during the year was related to winter flooding at the beginning of the year on the lower Kaministiquia River related to delayed ice formation and resulting frazil ice generation, that resulted in flooding at Fort William Historical Park; record breaking and near record breaking water levels on Lake Superior throughout the entire year; and an isolated extreme precipitation event on the Whitefish River in June.

Lake Superior broke all time high lake level records for three months in 2019. Levels exceeded previous high-level records set in 1956/1986/1950 in April, May and June and were at the record levels in July and August. All other months were well above the long-term mean levels. High lake levels resulted in extensive shoreline erosion, which resulted in an increase in Section 28 permits issued from the LRCA.

Major maintenance dredging was completed on the Neebing-McIntyre Floodway in 2019, which resulted in 4,526 cubic metres of sediment removed from the Floodway channel between the William Street and Balmoral Street bridges. Dredging ensures that the integrity of the Floodway is maintained to ensure the Intercity area and lower Neebing River continue to be protected from flooding up to the magnitude of the Regional Storm. Annual monitoring is conducted from the ice every winter to measure the accumulation of sediment, which is used to determine when dredging is required.

9 Streamflow Gauges

11 Precipitation Gauges

3 Snow Survey Sites

Riverine flood protection provided by Neebing-McIntyre Floodway to the lower Neebing River and Intercity areas

0 WATER SAFETY STATEMENTS

High flows, unsafe banks, melting ice or other factors could be dangerous for recreational users such as anglers, hikers, canoeists, children, pets, etc. Flooding is not expected.

0 FLOOD WATCHES

Indicates that there is the potential for flooding within specific watercourses and municipalities.

2 FLOOD WARNINGS

Indicates that flooding is imminent or occurring within specific watercourses and municipalities.

5 FLOOD OUTLOOK STATEMENTS

Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions.

5 MONTHS OF LAKE SUPERIOR SHORELINE FLOOD WATCH

The LRCA issued a Flood Watch for the shores of Lake Superior that lasted 5 months.

0 FLOODWAY DIVERSIONS

The Neebing-McIntyre Floodway affords riverine flood protection to the lower Neebing River and Intercity areas.

70 PERMITS ISSUED

Under Ontario Regulation 180/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

237 COMMENTS MADE ON PLANNING ACT APPLICATIONS

Per delegated commenter role regarding Section 3.1 of the Provincial Policy Statement.

803 PROPERTY MAPS ISSUED

Maps are provided to illustrate regulated features or properties.

313 GENERAL INQUIRIES

Property and permit consultations.



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.



Photos (left to right): LU CARIS drone demo at Silver Harbour Day; High school students at Cascades; Birders at the 2019 Dorion Birding Festival; Damage to the boardwalk at Mission Island Marsh; Elder Tony DePerry with Gloria Ranger and Kelsie Pagacz of the Thunder Bay Indigenous Friendship Centre led the LRCA's first Medicine Walk at Hazelwood Lake; The James Duncan Nature Trail connects Little Trout Bay to the Nature Conservancy of Canada's Big Trout Bay property.

The LRCA proudly took over the Dorion Birding Festival in 2019 after ten successful years under the previous planning committee. The two-day Festival had approximately 113 birders come out, who observed 118 unique bird species over the course of the Festival, which was held on May 25 & 26.

High lake levels and stormy weather severely damaged the boardwalk, caused shoreline erosion and damaged trails at Mission Island Marsh. The LRCA thanks Campbell Trucking & Backhoe Services for donating their time and equipment to help with clean up of the area. In 2020, the boardwalk will be assessed to determine its long-term viability.

General maintenance of LRCA-owned lands resulted in over 1,865 kilograms of garbage and debris removed from area waterways.

Conservation Areas saw some minor updates, including a new memorial bench at Cascades, boardwalk sections at Little Trout Bay and Mills Block Forest and the re-installation of the coin box at Mission Island Marsh thanks to a generous donation from Alloy Technical Welding.

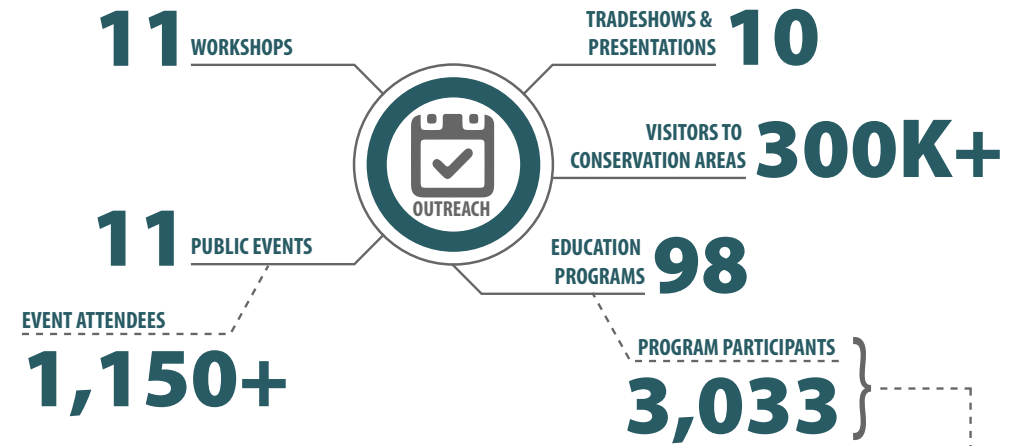


Alloy Technical Welding Services
Campbell Trucking & Backhoe Services
Canada Coast Guard
Canada Summer Jobs
City of Thunder Bay
Confederation College
Conservation Ontario
EarthCare
EcoSuperior
Enbridge Inc.
Family of Kay and Harry Wakefield
Flashback Photo
Fort William Historical Park
Friends of Wishart
Gear Up For Outdoors
Get Out Gear Rentals
Haven Hostel
Hill's Greenhouses Ltd.
Iron Range Bus Lines Inc.
Kay Lee Photography

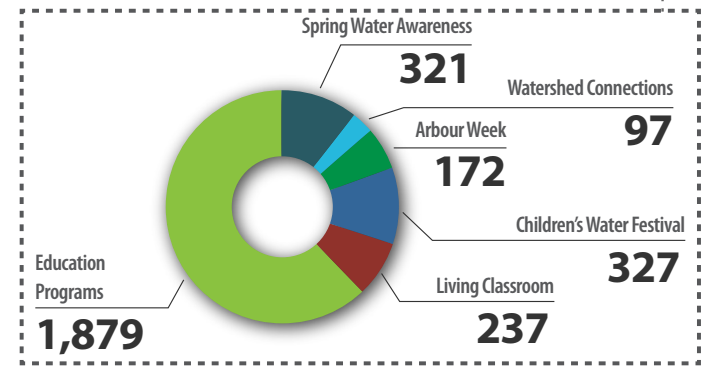
KBM Resources Group
Lake Superior National Marine Conservation Area
Lakehead Canoe Club
Lakehead University
Let's Talk Science
LU C.A.R.I.S.
Ministry of Environment, Conservation and Parks
Ministry of Natural Resources and Forestry
Ministry of Northern Development and Mines
Municipality of Neebing
Municipality of Oliver Paipoonge
Municipality of Shuniah
Natural Edge EcoPark
Nature Conservancy of Canada
No. 7 Grannies Rustic Pizza

NWO Geocachers
Ocean Bridge
Ontario Nature
Ontario Parks
Ontario Power Generation
Ontario Provincial Police
Parks Canada
Regional Food Distribution Association
SAND- Such A Nice Day Adventure Expeditions
Seek Adventure & Tours
Shuniah Fire and Rescue
Skyline Falconry
St. Ignace High School
Superior Collegiate & Vocational Institute
Superior Science
Superior SUP
Thunder Bay 55+ Centre
Thunder Bay Astronomical Society
Thunder Bay District Health Unit

Thunder Bay Field Naturalists
Thunder Bay Geology and Lapidary Club
Thunder Bay Hiking Association
Thunder Bay Indigenous Friendship Centre
Thunder Bay Master Gardeners
Thunder Country Diving
Township of Conmee
Township of Dorion
Township of Gillies
Township of O'Connor
United Way Day of Caring
Upriver Running
Urban GreenScapes
Walk With Doc
Wayfinder Trails & Recreation
Wilderness Supply



+2,500
hectares of land, including Conservation Areas, Forest Management Properties, floodplain lands, nature reserves and undeveloped holdings





GOVERN & ENHANCE

Distinguish the organization as a leader in environmentally-sustainable practices and responsible stewardship.

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.



Photos (left to right): LCF Cheque Presentation from Foundation President Andrea Goold to LRCA Chair Donna Blunt; Board Member Reference Manual; LRCA Chair Donna Blunt and former Source Protection Committee Chair Bob Hartley at his retirement; participants of the Northern Ontario First Nations Environment Conference; new coin box at Mission Island Marsh (donated by Alloy Technical Welding); LRCA office is an inclusive "Wake The Giant" location.

In 2019 the Provincial Government cut funding to Conservation Authorities mid-year across the Province of Ontario by approximately 50%. This resulted in the deferral of some planned maintenance and activities.

Several new policies were created and/or updated during 2019, including 7 new occupational health and safety policies as well as 14 additional policies related to human resources, purchasing and Board of Directors.

The LRCA continued its goal to further meaningful engagement with local Indigenous groups, including participation at the Maadaadizi post-secondary Indigenous Student Orientation and the Northern Ontario First Nations Environment Conference. The LRCA also partnered with the Thunder Bay Indigenous Friendship Centre and Elder Tony DePerry for two Medicine Walks, one hosted at Hazelwood Lake and the other at Mission Island Marsh.

1 of 2 Conservation Authorities on the Lake Superior shoreline

1 of 5 Conservation Authorities in Northern Ontario

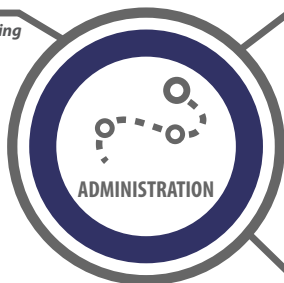
1 of 36 Conservation Authorities in the Province of Ontario

11 STAFF TRAINING SESSIONS

Commitment of ongoing learning and development of staff.

7 NEW HEALTH & SAFETY POLICIES CREATED

Continued commitment to the Health and Safety of Staff.

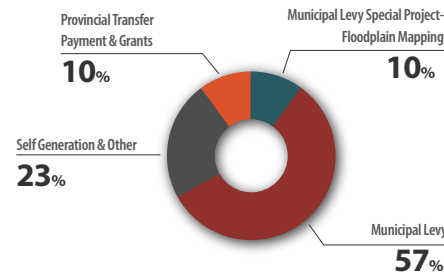


14 POLICIES CREATED & AMENDED

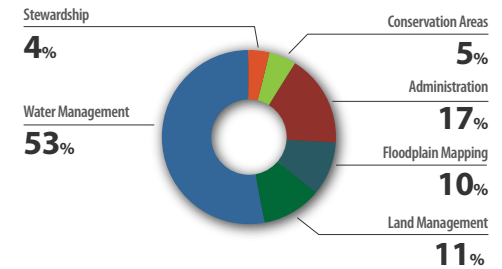
Continued effort to improve accountability and transparency.

The LRCA's budgeted 2019 revenue and expenditures totalled approximately \$2,625,768.00.

REVENUE



EXPENDITURES



\$20K RAISED

Funds raised by the LCF help fund the LRCA's Environmental Education program.

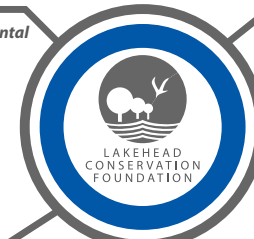
2 FUNDRAISING EVENTS

2019 Conservation Dinner & Auction
2019 Wine Tasting & Dinner at Whitewater

10 FOUNDATION MEMBERS

Andrea Goold, **President**
Ken Boshcoff, **Vice-President**
Virginia Lane, **Secretary**
Krysta Alexander, **Treasurer**
Mary Creed

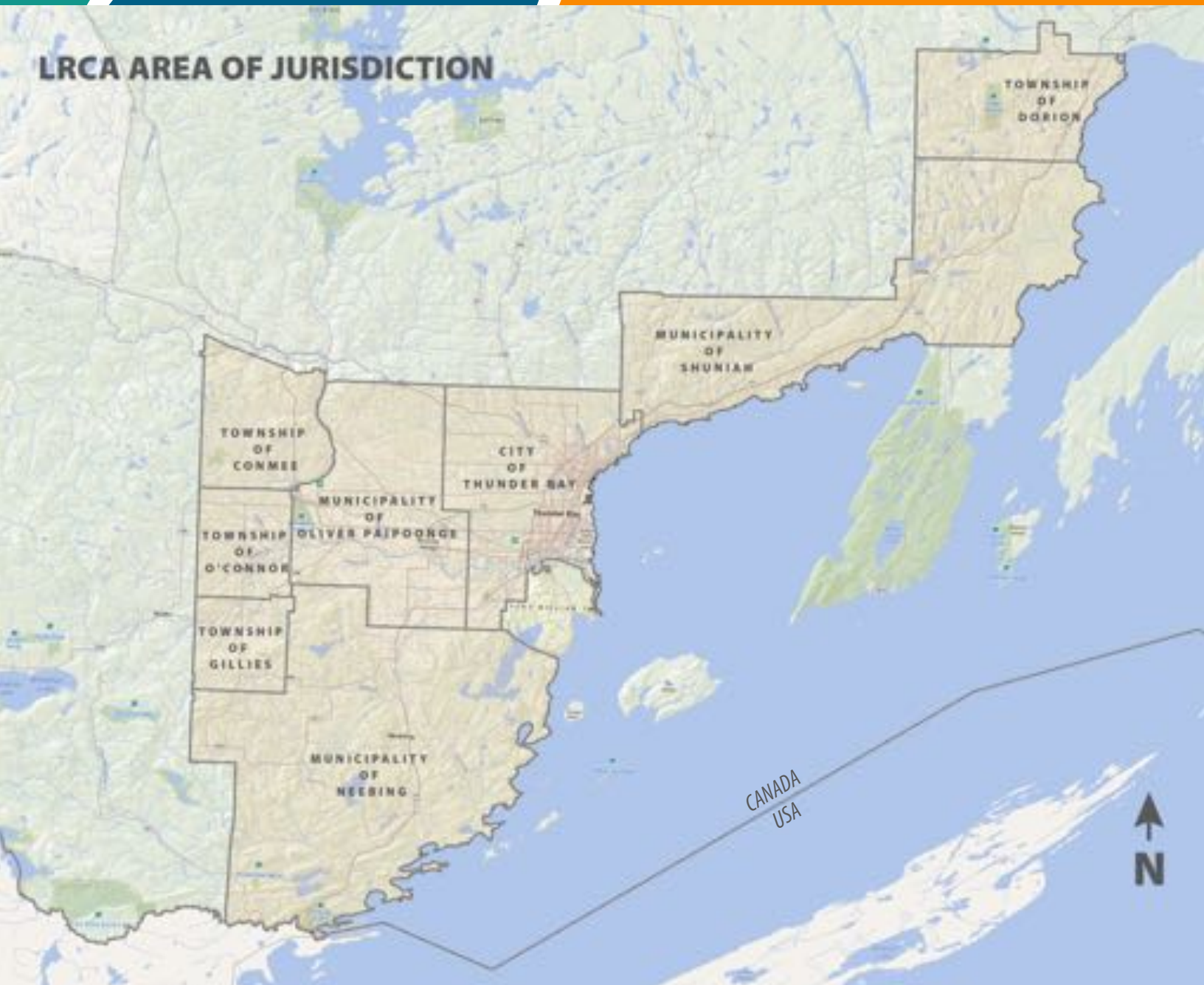
Dr. Bradley Jacobson
Erin Knight
Fiorella Latimer
Mary Provenzano
Wendy Wright



115 DONATIONS RECEIVED

Donations include auction items, local art, cash donations and corporate sponsorships.

LRCA AREA OF JURISDICTION



"CONSERVE TODAY... FOR A BETTER TOMORROW"

Member of



Conservation
ONTARIO
Natural Champions

LRCA ESTABLISHED 1954

130 Conservation Road, PO Box 10427

Thunder Bay, ON P7B 6T8

Phone: (807) 344-5857 | Fax: (807) 345-9156

WWW.LAKEHEADCA.COM

f @lakeheadregion