



LAKEHEAD REGION
CONSERVATION AUTHORITY



2016 ANNUAL REPORT



Cedar Falls Conservation Area

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***
- Bill Bartley ***City of Thunder Bay (January - August)***
- Jim Vezina, Vice-Chair ***Township of O'Connor***
- Grant Arnold ***Township of Conmee***
- Ed Chambers ***Township of Dorion***
- Wendy Wright ***Township of Gillies***
- Erwin Butikofer ***Municipality of Neebing***
- Jim Byers ***Municipality of Oliver Paipoonge***
- Umed Panu ***City of Thunder Bay***
- Ken Boshcoff ***City of Thunder Bay***
- Andrew Foulds ***City of Thunder Bay***
- Linda Rydholm ***City of Thunder Bay***

STAFF

- Tammy Cook ***Chief Administrative Officer***
- Mervi Henttonen ***General Manager/Secretary Treasurer (Jan. - June)***
- Simon Shankie ***Watershed Manager***
- Mark Ambrose ***Finance Manager***
- Michael Heath ***Finance Manager (January - November)***
- 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: Evinrude the Peregrine Falcon



Mission Island Marsh Conservation Area



Tammy Cook, CAO with Donna Blunt, Chair

A YEAR OF CHANGE AT THE LRCA

Changes to the LRCA Board and Staff

2016 has seen some major changes to the Board and staff of the LRCA. Long-time LRCA General Manager/Secretary-Treasurer Mervi Henttonen finished her 42 year career with the Authority when she retired on June 30th, 2016. On July 4th, 2016 Tammy Cook began her new role as Chief Administrative Officer (CAO). Tammy was formerly the LRCA's Watershed Manager and has been employed by the LRCA for over 11 years.

After serving over 19 years on the Board, former Chair Bill Bartley resigned his position due to a change in residency. Bill originally represented the Municipality of Shuniah and then the City of Thunder Bay. He has served as Chair of the Board since 2001. Municipality of Shuniah Board representative and former Vice-Chair of the Board Donna Blunt was elected Chair in June 2016. Jim Vezina, the representative for the Township of O'Connor, was elected Vice-Chair. To fill the vacancy on the Board, the City of Thunder Bay re-appointed former Board Member Umed Panu.

A Message from the Chair and CAO

As the Chair and CAO, we are both committed and excited to be part of this time of renewal and refresh at the LRCA. We would like to acknowledge and thank the great team of staff and Board of Directors for their continued support during this time of transition and for their hard work during the past year. We would also like to acknowledge our valuable partnerships and the Lakehead Conservation Foundation for their on-going dedicated support of the Authority.

Looking forward to 2017, the future vision, goals and objectives of the Authority will be developed through the creation of the LRCA's first Strategic Plan. Through the Strategic Planning process, the Board of Directors, staff and the public will have the opportunity to assist in shaping the future of the Authority.

We both look forward to working with our various partners, staff and Board of Directors into the next year and are focused on continuing to provide rewarding opportunities and a valuable service to the residents in the Lakehead Watershed.

The LRCA is Going Social

In 2017, be sure to look the LRCA up on Facebook, Twitter and Instagram. The LRCA plans to utilize social media to enhance communications with residents of the Lakehead Watershed as well as efficiently convey Flood Messages and other news items in a near-instantaneous manner. Additionally, the LRCA now accepts Visa, MasterCard and Debit at our Administrative Office, and PayPal is accepted online for select items. Staff also reached out to the community through an online survey in an effort to gain visitation and usage feedback from visitors to our Conservation Areas.

AROUND THE WATERSHED

Stewardship

The Private Landowners Tree Seedling Assistance Program was a success in 2016, with 8,176 tree seedlings being planted, including 212 two-year old seedlings planted by LRCA staff on LRCA-owned property along McVicar Creek. As a result of the program, approximately 126,249 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 2016 for their contribution to the program. The program will be offered in 2017 once again with the generous support of Hill's Greenhouses. An additional 1,000 seedlings donated by Resolute Forest Products were distributed free of charge at the LCF's Plant Sale in June. The LRCA also offered a pollinator plant subsidy program in a partnership with Landale Gardens.

Through funding granted by the Great Lakes Guardian Community Fund, the LRCA worked with local farmer Jack Hansen on a stream bank/riparian zone restoration and cattle crossing project to help address water quality and erosion concerns in the Slate River Valley. This work took place along a stretch of Otter Creek in the Municipality of Neebing. The project was carried out in conjunction with the LRCA and Mr. Hansen, the North Shore Steelhead Association, Thunder Bay Soil and Crop Improvement Association and with the help of volunteers from Sir Winston Churchill Secondary School. Work conducted included the construction of a cattle crossing, fencing, reducing the slope of the stream banks, hydro seeding and live-staking.

Watershed Health

Annually, a Watershed Assessment of a local river or stream is conducted by staff. In 2016, the Oliver Creek Watershed was studied. The watershed covers 47.9 square kilometres within the Municipalities of Oliver Paiponge and Neebing. At the time of assessment, the Oliver Creek Watershed was considered to be in good health. The full report can be accessed on our website. In 2017, the Coldwater Creek watershed, which runs through the Township of Dorion, will be the next studied watershed.

Hazelwood Lake Conservation Area did not have any beach advisory's posted in 2016. The last time a beach advisory was posted was in 2007.

In partnership with the Ministry of the Environment and Climate Change (MOECC), the LRCA monitors eight wells throughout the watershed as part of the Provincial Groundwater Monitoring Network. The wells record groundwater levels every hour and are sampled for water quality once per year. Data is used to monitor the groundwater conditions in the area. The LRCA also monitors the surface water quality of five area watercourses: McVicar Creek, McIntyre River, Current River, Slate River and Neebing River. Water samples are collected and analyzed monthly at the MOECC laboratory during the ice free period. Data is used to monitor the long term water quality of the sampled streams.

The Ministry of Natural Resources and Forestry (MNRF) has officially designated a Provincially Significant Wetland in the McVicar Creek watershed that was evaluated by certified wetland evaluators on behalf of the LRCA in 2015. In 2016, with funding from the MNRF, the LRCA hired certified wetland evaluators to assess identified un-evaluated wetlands within the McIntyre watershed. The results are still pending. In 2017, subject to funding, wetlands within the Mosquito Creek watershed will be assessed.



LRCA staff planting tree seedlings



Two-year old seedlings ready for planting



Cattle crossing work being completed along Oliver Creek



Completed erosion mitigation work along Otter Creek



Hydroseeding at the Oliver Creek cattle crossing

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.

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 2016, comments were provided on 370 Planning Act applications. In 2016, staff provided over 1,032 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 or wetland within the LRCA Area of Jurisdiction, a permit from the LRCA may be required. During 2016, a total of 51 permits were issued.

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 2016, Watershed Conditions Statements were issued during Spring Freshet and a November rainfall event. The November Watershed Conditions Statement was the latest in the year that the LRCA has ever issued a Flood Message.

The LRCA also 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 December Lake Superior water level was 14 centimetres above the 1918-2015 average, and was one centimetre higher than last year's level. The Lake is approximately 64 centimetres below the 100 year flood level, which was observed in 1986, compared to record low lake levels observed in 2007.

Floodplain Mapping

In 2016, work began to update the floodplain mapping within the Neebing River watershed, which is part of an overall long term plan to update all completed floodplain mapping. The original Neebing River study, which was completed in 1985 within the City of Thunder Bay, is being updated and extended partially into the Municipality of Oliver Paipoonge. Through the use of state of the art modelling, GIS techniques, LiDAR and orthophotography, the updated mapping will enable LRCA staff to utilize the updated 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 2017 to present the findings to the public.

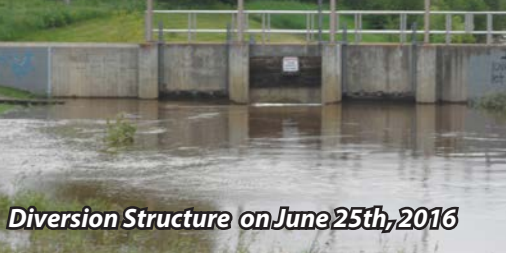
Source Water Protection

The Lakehead Source Protection Authority completed their first Annual Report for the Lakehead Source Protection Plan covering the period of October 1, 2013 to December 31, 2015. 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 May 1st covering the previous year. The First Annual report can be found at www.sourceprotection.net.

In 2016, the Minister of the Ministry of Environment and Climate Change re-appointed Mr. Bob Hartley as the Chair of the Source Protection Committee for a term of three years. Mr. Hartley has been the Chair of the Source Protection Committee since its inception in 2007. In addition, the Source Protection Authority reduced the size of the Source Protection Committee from nine to six members, which coincided with the appointment of the membership of for the next term of five years.



Site grading and the placement or removal of fill are regulated activities.



Diversion Structure on June 25th, 2016



A streamflow gauge station on the Neebing River

CONSERVATION AREAS

Mission Island Marsh*
Cedar Falls
Cascades
MacKenzie Point*

Hazelwood Lake
Little Trout Bay*
Hurkett Cove*
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
- 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.

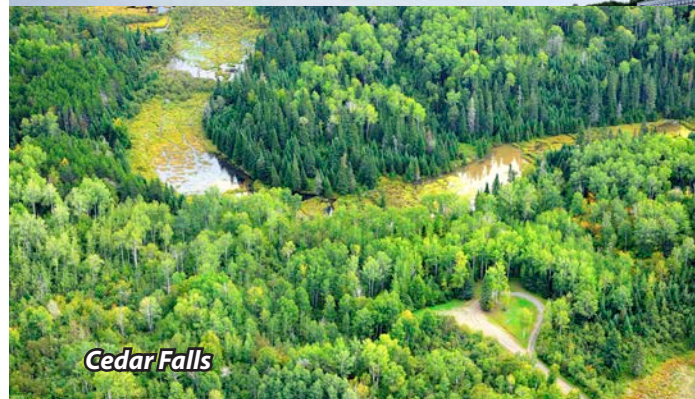
Unique trails await you at Mission Island Marsh, Cedar Falls, Cascades, Hazelwood Lake, Little Trout Bay and Hurkett Cove Conservation Areas. The trails at each of these Areas offer their own distinct qualities, and range from a short stroll through the woods to a longer hike over picturesque terrain. 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 visit our website for a full listing of the Conservation Areas Regulations.

Let's keep Conservation Areas safe, clean and fun for everyone!



Mission Island Marsh



Cedar Falls



Hazelwood Lake



Silver Harbour



Cascades



MacKenzie Point



Hurkett Cove



Little Trout Bay

AREAS UPDATE

Visitation to the LRCA's eight Conservation Areas and two publicly accessible Forest Management Properties was extremely high in 2016. The busiest day of the year by far was Saturday, March 12 at Cascades Conservation Area, which saw over 617 vehicles at that one area alone. According to weather data for that date, the daytime high was an unseasonably high 16° Celsius. The estimated number of visitors to LRCA-owned recreational properties during 2016 is well over 350,000 people.

On August 9th, Union Gas staff and volunteers carried out extensive work in the parking lot and along the trail at Mills Block Forest. As part of their Helping Hands In Action program, Union Gas levelled the parking lot and a portion of the trail. The highlight of their hard work is the new footbridge across the pond area. Mills Block Forest is heavily visited and the LRCA is grateful for these incredible contributions, as they enhance the visitor experience at this area.

Shoreline erosion mitigation work, along with a riparian zone restoration planting took place at Mission Island Marsh Conservation Area, through a grant from the Great Lakes Guardian Community Fund. The work was carried out by LRCA staff along with student volunteers from Sir Winston Churchill High School.

Each year, the LRCA seasonal field staff work hard at keeping the Conservation Areas, Floodway and other areas clean and free of debris. Over 1,915 kilograms of debris was removed from the Neebing-McIntyre Floodway and other waterways. Some of the debris included: 12 shopping carts, six bicycles, eight tires, one couch and one recliner chair. The remainder of the debris primarily consisted of food wrappers, alcohol containers, discarded lumber and pieces of foam.

LRCA staff also installed a new concrete picnic table at Cedar Falls Conservation Area. A second concrete picnic table was installed at Mission Island Marsh Conservation Area to replace one that was lost due to vandalism.

During 2016, the LRCA completed an Asset Management Plan, which will be used to guide the future management of LRCA-owned assets.



Extremely high visitation at Cascades Conservation Area during summer 2016



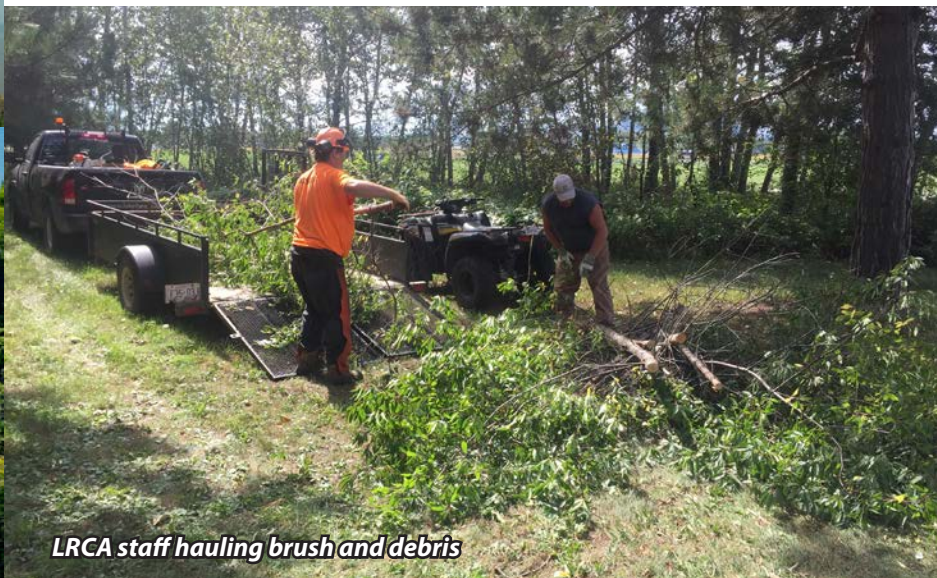
Union Gas Helping Hands In Action volunteers undertaking work at Mills Block Forest



New footbridge at Mills Block Forest, donated and installed by Union Gas



LRCA staff removing trash from area waterways



LRCA staff hauling brush and debris



Parking lot work at Silver Harbour Conservation Area

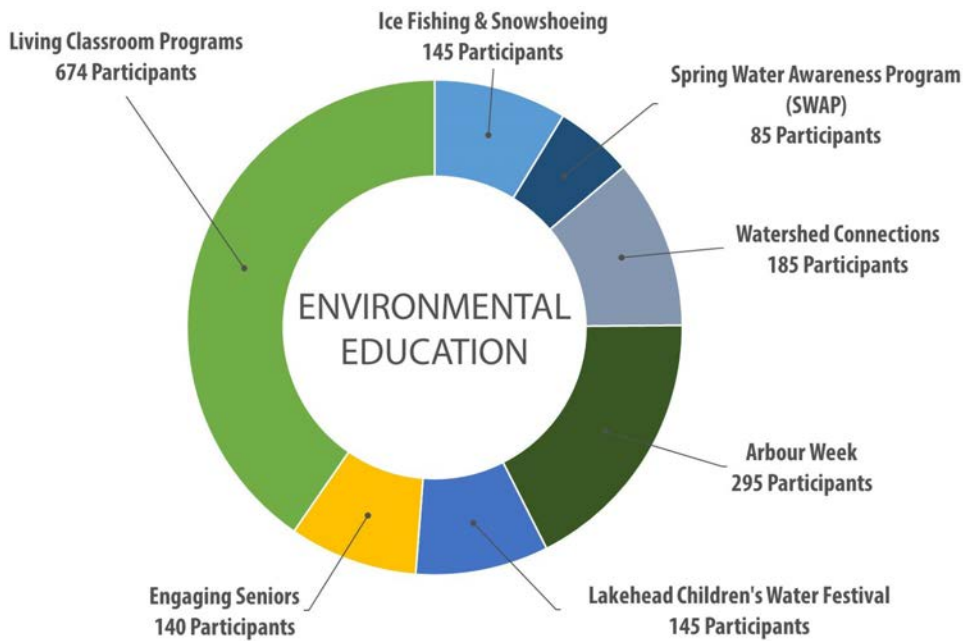
COMMUNITY OUTREACH

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 2016 with much success; the LRCA will be offering similar programs in 2017.

A total of 1,669 participants from different user groups (including school classes, health centres and senior groups) took part in our Environmental Education and Outreach Programming:



Partnerships and Sponsors

Partnerships and sponsorships are vital in enabling the LRCA to accomplish many valuable projects in the watershed. The Royal Bank of Canada (RBC), the Regional Food Distribution Association (RFDA), Community Living Thunder Bay and the Lakehead Conservation Foundation were all instrumental in launching the Lakehead Community Garden. Additionally, local businesses Gear Up For Outdoors, Wilderness Supply, KBM, Skyline Falconry and the Lakehead Canoe Club assisted at LRCA events. A significant amount of work was also undertaken at Mills Block Forest by the Union Gas Helping Hands In Action program. The LRCA also participated in programming with Ontario Nature, EcoSuperior, Landale Gardens and more. The LRCA would like to thank the following sponsors for their generous contributions in 2016:

- Ontario Power Generation
- Hydro One
- TD Friends of the Environment Fund
- Ministry of the Environment and Climate Change
- Ministry of Natural Resources and Forestry
- RBC Blue Water Fund
- Union Gas Helping Hands in Action
- Great Lakes Guardian Community Fund
- Hills Greenhouse
- And many more community partners and local businesses/organizations



Ice fishing at Hazelwood Lake Conservation Area



Engaging Seniors Program at Silver Harbour, funded by TD Friends of the Environment



Children's Water Festival at the LRCA Office



RBC Cheque presentation



Watershed Connections program, funded by RBC



Nature hike at Hazelwood Lake Conservation Area

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 hosted several events throughout 2016. The six Engaging Seniors in the Outdoors Programs offered by the LRCA were hugely popular, and included topics such as geocaching and GPS skills, birding, trees, orchids and wildflowers and more.

The Hazelwood Lake Snowshoe Adventure featured the participation of Gear Up For Outdoors, and was a well-received family event. Hazelwood Lake Family Fun Day saw the LRCA partner with Wilderness Supply Co. to offer the public the opportunity to try out canoes, kayaks and stand-up paddle boards, and Little Trout Day By The Bay saw a great turnout even though the weather was a little rainy.

The LRCA's Fall events, including the Fall Mushroom Hike, Trails and Tails Dog Adoption Fair and Fall Waterfowl Viewing Day were also popular and well-attended. A falconry demonstration was also held at the LRCA's Administrative Office in November. Be sure to check our website regularly for up-to-date events information.

Community Garden and Greenhouse

The LRCA formed new partnerships with the Regional Food Distribution Association (RFDA) and Community Living Thunder Bay for the Conservation Community Garden Project, with support from RBC and the Lakehead Conservation Foundation (LCF).

The community garden yielded an impressive harvest in the fall, thanks to the efforts of the RFDA Garden Coordinators and the involvement of Community Living Thunder Bay staff and clients and members of the LCF. The LRCA is excited to be working with the RFDA during 2017, and anticipates the ongoing growth of the community garden and greenhouse.



Hazelwood Lake Family Fun Day



Little Trout Day By The Bay



RBC Senior Account Manager Aldo Fata planting in the LRCA Community Garden



Churchill High School students volunteering at Mission Island Marsh Conservation Area



RFDA Garden Coordinators Katie Watson and Brittany Sheppard



RFDA plots in the LRCA Community Garden



LRCA Greenhouse full of items at the LCF Plant Sale

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. The purpose of this engineering marvel 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 7-10 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.

On November 28th and 29th, 2016, the City of Thunder Bay and surrounding area experienced a significant rainfall event. Coupled with the existing snow on the ground, precipitation and runoff increased river levels and flow throughout the region. Due to this event, the Neebing-McIntyre Floodway diverted water over the course of approximately four days, which is the latest in the year that the Floodway has ever diverted. The Floodway operated as designed and within capacity.

The Neebing-McIntyre Floodway is an invaluable community resource. In addition to riverine flood protection of the lower Neebing River and Intercity area, the 38 hectares of land that comprises the Neebing-McIntyre Floodway has grown to include activities such as canoeing and kayaking, and the pedestrian trails provide the community with the opportunity to pursue a healthy lifestyle. The LRCA also utilizes the Floodway for educational purposes.

In 2016, staff initiated a water level monitoring program within the Floodway. Periodically during the year, including during high water events and spring freshet, LRCA staff will be taking water level measurements from various bridges that cross the Floodway. This data will be used for future modelling and routine assessments of the Floodway. This data is in addition to the annual surveys completed from the ice to monitor sediment loading within the channel. Spring surveying is also completed annually to assess sediment build up at the entrance to the Diversion Channel. Based on the 2016 survey, LRCA staff plan to dredge the entrance to the Diversion Channel in 2017.



LRCA Seasonal staff conducting routine maintenance in the Diversion Channel



Scenic view of the Diversion Channel



Inspection of the Diversion Structure



The Floodway Channel outlets into Lake Superior



The widened and deepened Floodway Channel

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 LCF also held a plant sale in June.

The 2016 Fundraising Dinner and Auction was held on February 1, 2016 and raised over \$18,000.00. Tickets for the 2017 Conservation Dinner and Auction, to be held on February 9, 2017, are on sale now. Contact the Authority office for your tickets as soon as possible.

LCF President Andrea Goold presented former Chair Bill Bartley with a cheque for \$18,000.00 during 2016'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.



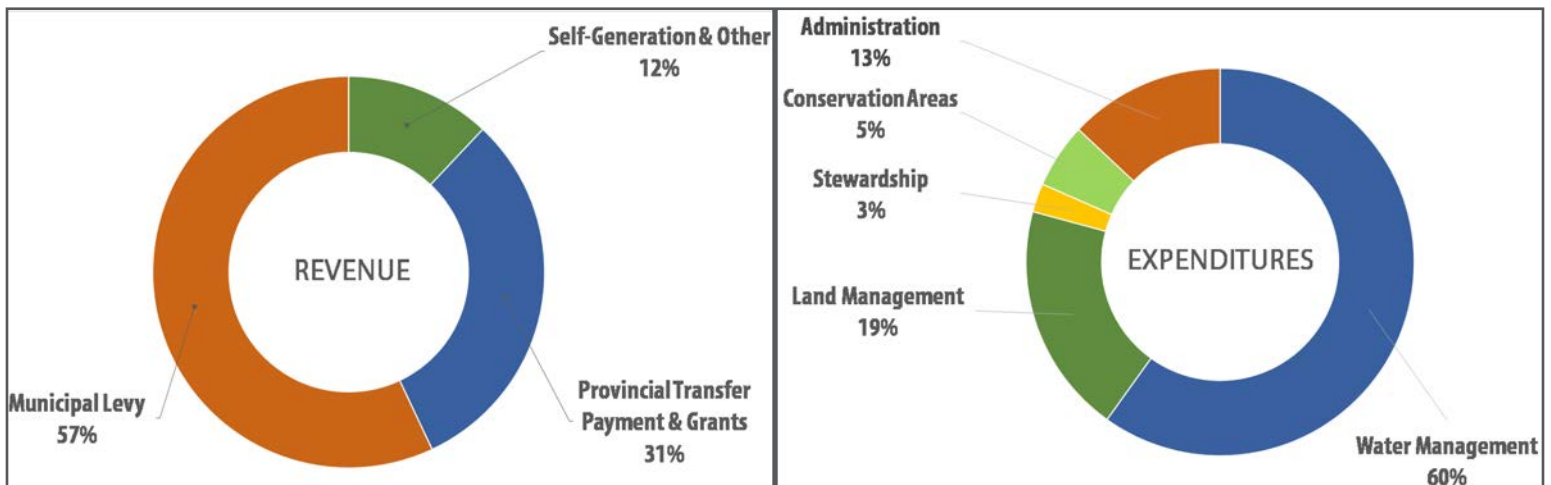
LCF MEMBERS

- Andrea Goold, **President**
- Shelly Brown, **Vice-President**
- Ron Miller, **Secretary**
- Mary Provenzano, **Treasurer**
- Allison Bannister
- Ken Boshcoff
- Andrew Dubinsky
- Doug Guinn
- Dr. Bradley Jacobson
- Virginia Lane
- Wendy Wright



2016 FINANCIAL REPORT

The LRCA's budgeted 2016 revenue and expenditures totaled approximately \$2,801,500.00. 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 2016 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.

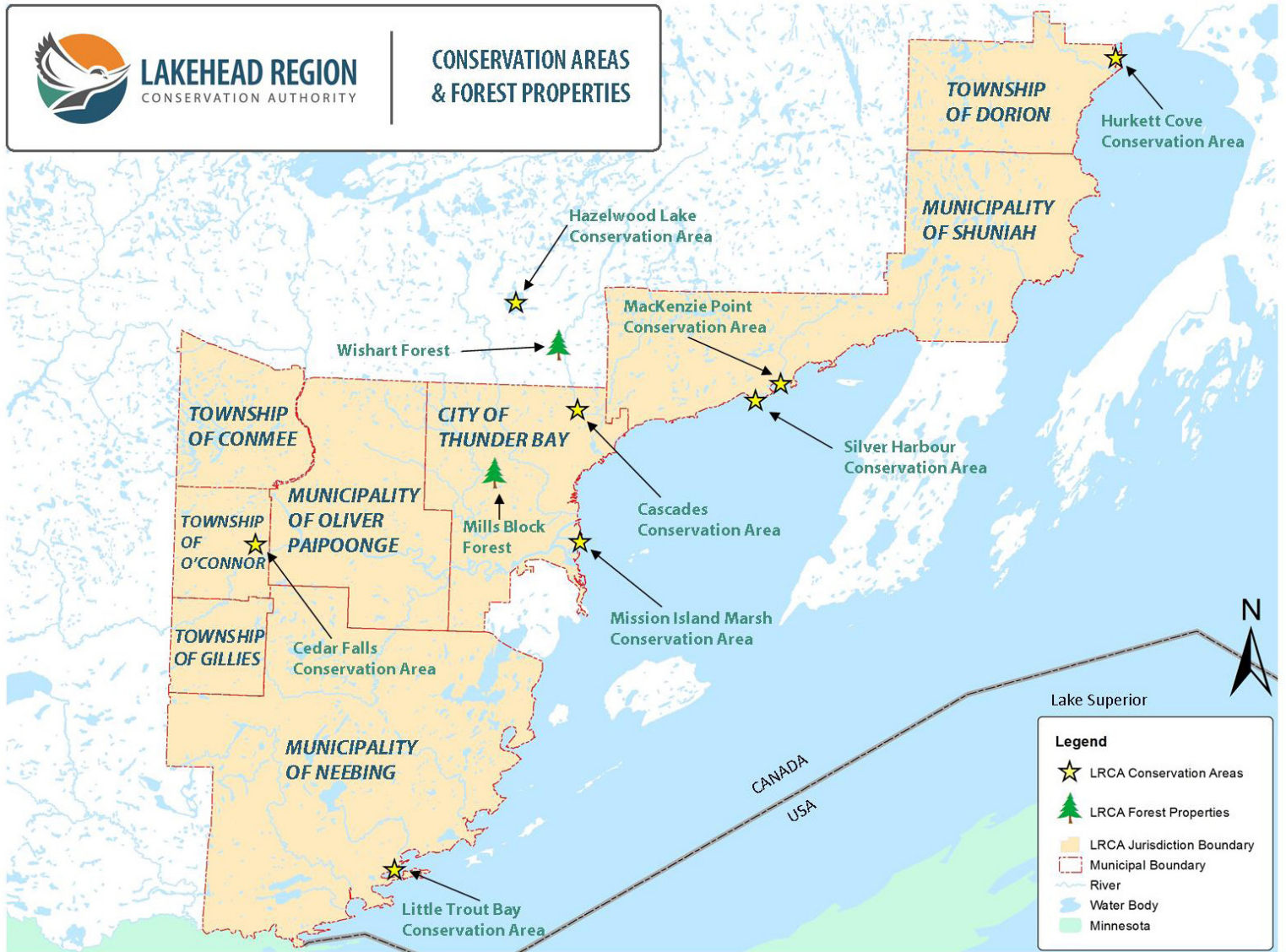


Silver Harbour Conservation Area



LAKEHEAD REGION
CONSERVATION AUTHORITY

**CONSERVATION AREAS
& FOREST PROPERTIES**



“TAKE NOTHING BUT PICTURES, LEAVE NOTHING BUT FOOTPRINTS!”



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



FIND US ONLINE!

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