



LAKEHEAD REGION
CONSERVATION AUTHORITY



2013 ANNUAL REPORT

*Conserve Today...
For A Better Tomorrow*



LAKEHEAD REGION CONSERVATION AUTHORITY

BOARD MEMBERS:

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Jim Vezina– Township of O'Connor
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Ken Boshcoff– City of Thunder Bay
Gary Murchison– City of Thunder Bay
Linda Rydholm– City of Thunder Bay

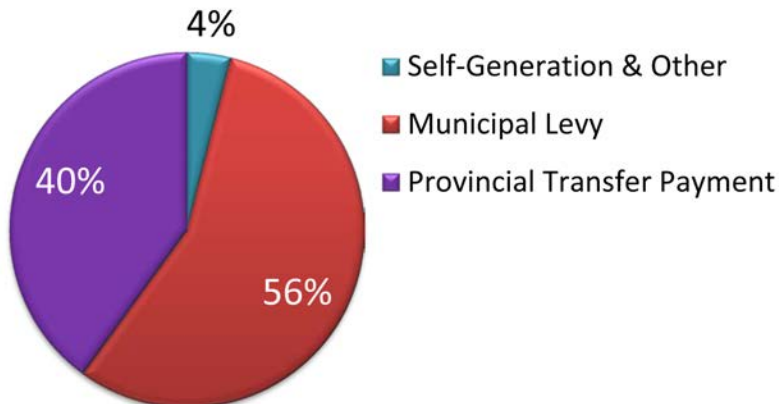
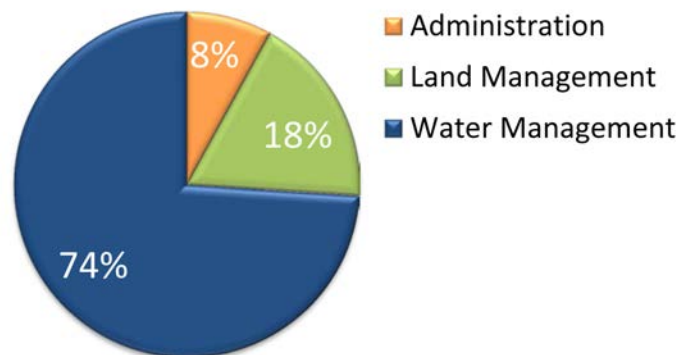
STAFF:

Mervi Henttonen– General Manager/Secretary-Treasurer
Tammy Cook– Watershed Manager
Ryne Gilliam– Field Operations Supervisor
Michelle Sixsmith– Water Resources Technologist
Ryan Mackett– Community Stewardship/Public Relations Officer
Norma Hunt– Financial Assistant
Melanie O'Riley– Administrative Assistant
Roman Augustyn– SWP GIS/Data Specialist
Scott Drebit– GIS Technician/Planner
Erin Moir/Nicole Campbell– Environmental Education and Outreach Coordinator (Contract)
Vince Ponka– SWP Communications/Administrative Assistant (Contract)

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

The LRCA's budgeted 2013 revenue and expenditures totaled approximately \$3,140,750.00. 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 2013 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.

2013 was a busy and exciting year, and 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.

Revenue**Expenditures**

AROUND THE WATERSHED

The Private Landowners Tree Seedling Assistance Program was a success in 2013, with a total of 101 orders received. This amounted to 13,891 tree seedlings being sold. As a result of the program, over 90,798 seedlings have been planted in the Lakehead Region Watershed since the program's inception in 2009. The LRCA would like to thank the generous support of Hydro One in 2013; their contribution to the program enabled the LRCA to offer a limited number of tree seedlings free of charge. The program will be offered in 2014 once again with the generous support of Hill's Greenhouses.

Annually, a Watershed Assessment of a local river or stream is conducted by staff. In 2013 the MacKenzie River Watershed was studied. The watershed covers 368 square kilometres and spans the Municipality of Shuniah, Township of Dorion, and unorganized crown land. At the time of assessment, the MacKenzie River Watershed was considered to be in good health. The full report can be accessed from the Authority website.

Hazelwood Lake Conservation Area did not have any beach advisories posted in 2013. The last time a beach advisory was posted was in 2007.

In partnership with the Ministry of the Environment, the LRCA monitors nine 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 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 Ministry of Environment laboratory during the ice free period. Data is used to monitor the long term water quality of the sampled streams.

Due to on-going erosion along the Kaministiquia River banks along Victor Street, the Authority undertook erosion control measures at three locations in 2013. Based on an engineering report, bank stabilization work was completed as an interim measure. A longer term solution, utilizing soil nailing technology, which has previously been successful in the area, is planned to be completed in 2014.



EXPLORE

LAKEHEAD REGION CONSERVATION AUTHORITY

One of the most popular and successful aspects of the LRCA's "EXPLORE" re-branding that began in 2012 has been the T-shirts. In 2013, two new designs were released: a black and white wolf logo on a charcoal coloured T-shirt and a blue and white dragonfly logo on a black T-shirt. T-shirts are available for purchase from the LRCA office, and can also be found at certain special events that the LRCA attends, such as the CLE Spring Home & Garden Show and Hymers Fall Fair. Be sure to look for new designs in 2014.

There were several fantastic events held by the LRCA in 2013. Silver Harbour Day was a huge success; Reptile Rob was on-site with his collection of interesting turtles, snakes and other reptiles; the Ministry of Natural Resources conducted a demonstration of their K-9 Unit; the OPP and Shuniah Emergency Services (who also ran a free BBQ) were present and the Coast Guard docked their search and rescue cutter the Cape Chaillon and conducted tours for interested visitors. Little Trout Day by the Bay was fairly well-attended considering the poor weather; Neebing Fire Department ran a fundraising BBQ and had their fire engine on display and Wilderness Supply Co. brought out a selection of canoes and kayaks to demonstrate for interested individuals. Other events this year included the Fall Mushroom Hike, Waterfowl Viewing Day, Cascades Canine Night, Cascades Healthy Hikes and the Mission Marsh 25th Anniversary sign unveiling. Be sure to check the 2014 Calendar of Events (opposite page) as well as www.lakeheadca.com throughout the year for more information on some exciting new events coming in 2014.

Thanks to a generous donation of \$500.00 from the Dorion Hurkett Dinking Club, a new cement bench was installed along the trail at Hurkett Cove Conservation Area. This welcome addition to the popular Conservation Area will allow visitors to rest while walking the trails, or offer a place to stop and sit while birding, wildlife viewing or taking photos.

Each summer the LRCA employs four summer students and two seasonal staff. The summer student Conservation Areas Maintenance crew was busy all summer maintaining the Areas, while the River Clean-Up crew kept LRCA-owned properties along rivers and watercourses within the City of Thunder Bay looking sharp. In addition, summer students also assisted with bathing beach studies at Hazelwood Lake, conducted the MacKenzie River Watershed Assessment, as well as assisting with special events and education programming. One of the big projects each summer is pulling garbage out of the Floodway and rivers along LRCA-owned properties. This summer, LRCA Staff removed over 3500 kg of unnatural debris from rivers in the city, including Styrofoam, 3 bicycles, 1 couch, numerous alcohol containers and other bottles. In addition, 26 shopping carts were also removed. A big thank you to the seasonal staff and summer students who worked hard keeping our Areas clean!

The Lakehead Region Conservation Authority is extremely proud to be celebrating its 60th Anniversary in 2014. Be sure to join us in celebration of this historic milestone throughout 2014. In 2014 the LRCA is also celebrating 40 years in its current office at 130 Conservation Road, which is currently undergoing renovations.

The LRCA is currently recruiting volunteers to help with various programming, events and projects, including education events, statistics and data gathering, and more. If you or someone you know is interested, please contact the LRCA.



CONSERVATION AREAS

Mission Island Marsh*
Cedar Falls
Cascades
MacKenzie Point*

Hazelwood Lake
Little Trout Bay*
Hurkett Cove*
Silver Harbour*

Parking at our Conservation Areas is only \$2.00 per vehicle, or show your Explore Card Parking Pass, available for only \$30.00 + HST. Forgo the \$2.00 per vehicle parking fee at all seasonal and year-round Conservation Areas for one full year with an Explore Card Parking Pass!

Our Conservation Areas offer:

- *5 access points to Lake Superior; boat launches at Silver Harbour and Little Trout Bay
- Over 22 km of trails on over 2,500 hectares of Conservation Lands
- Picnic shelters, pavilions, interpretive panels, outdoor privies and barbecue grills (at certain Areas)

Our Conservation Areas receive over 100,000 day users annually. The LRCA pays property taxes for its Conservation Lands, and is required to carry liability insurance on those properties. Explore Card sales and \$2.00 parking fees help offset the costs of owning, operating and maintaining these beautiful Conservation Areas.

We would like to remind dog owners visiting our Conservation Areas that their pets must remain leashed at all times and that they must pick up after their pets as outlined in the LRCA's Conservation Areas Regulations. City of Thunder Bay By-Law #71-1978 is applicable to all Conservation Areas located within the city limits of Thunder Bay, and is enforced by City of Thunder Bay Animal Services. Let's keep Conservation Areas safe, clean and fun for everyone!

2014 CALENDAR OF EVENTS

The LRCA will be hosting several events in 2014 and will be participating in several other events hosted by other organizations:

February 6: 2014 Conservation Dinner & Auction; Da Vinci Centre

April 4-6: CLE Spring Home & Garden Show

May 14: Tree Seedling Assistance Program; Pick-Up at Hill's Greenhouses

June 20: Photography Workshop

July 9: Cascades Canine Night; Cascades Conservation Area

August 13: Rural Health Fair

August 31 - September 1: Hymers Fall Fair

September 13: LRCA 60th Anniversary Celebration; Hazelwood Lake Conservation Area

September 21: Fall Mushroom Hike; Hazelwood Lake Conservation Area

October 11: Fall Waterfowl Viewing Day; Mission Island Marsh CA

***Please note: all events, dates, times and locations are subject to change. Visit www.lakeheadca.com regularly for more information and updates for these and other events.**



ENVIRONMENTAL EDUCATION

The Lakehead Region Conservation Authority's Environmental Education Programming continued to make great strides in 2013. LRCA Staff continued to conduct interpretive programs dealing with subjects such as orienteering, biodiversity, insects, animal tracking, pond studies and many other interesting, informative topics. These programs are booked by interested teachers for their classes and take place primarily at Hazelwood Lake Conservation Area; however, programs can also be booked for Mission Island Marsh, Cascades and Hurkett Cove Conservation Areas, as well as Mills Block Forest.

The purpose of the LRCA's Environmental Education Programming is to reach as many students as possible in an effort to spread the message of conservation; to deliver quality, Ontario Curriculum-approved programming; to stress the importance of our natural environment; and to ignite an interest and deep appreciation for exploration. It is through exploring the natural world that today's youth will begin to fully understand the delicate balance of nature and learn to take care of that balance. Education program rates are \$5.00 per participant (no HST for students under the age of 14) for a Living Classroom experience (2 hour Conservation Area field trip), or \$60.00 per hour (plus mileage) for an in-class presentation.

The following statistics are representative of the work being done by LRCA Staff in the area of environmental education:

- During the 2012/13 school year, the LRCA reached 831 students through our Environmental Education Program from 14 schools within our Area of Jurisdiction
- The 2013 LRCA Spring Water Awareness Program and Arbour Day programming reached an additional 307 students from 11 different schools
- The 2013 Mission Marsh Learning Trails Education Event reached an additional 118 students from 4 schools





MISSION ISLAND MARSH 25TH ANNIVERSARY

On Thursday, June 13th, 2013, the Lakehead Region Conservation Authority (LRCA) celebrated the 25th Anniversary of Mission Island Marsh Conservation Area (CA).

Through a partnership with the Lakehead Conservation Foundation (LCF), and thanks to support from the Government of Ontario's Great Lakes Guardian Community Fund, the LRCA was able to commemorate the 25th Anniversary of Mission Island Marsh CA through a shoreline rehabilitation project which saw the planting of approximately 28 species of native trees, shrubs, herbs, grasses and other plants in an effort to stabilize the shoreline, increase wildlife habitat and provide forage for the area's wildlife. Over 800 plants were planted.

This planting would not have been possible were it not for the dedication and support of numerous volunteers who assisted LRCA Staff with the planting the day of the event. A big thank you goes out to all of the volunteers from Sir Winston Churchill High School, Ontario Power Generation, Genivar and the general public. The support of the Government of Ontario and the Great Lakes Guardian Community Fund made this project possible.

The Great Lakes Guardian Community Fund also allowed the LRCA to produce a large historical interpretive panel which was unveiled the day of the planting. The panel acts as a time-line of the development of Mission Island into a recreational Conservation Area. It can be viewed on the side of the pavilion located in the meadow at Mission Island Marsh CA.

Mayor Keith Hobbs, MPP Bill Mauro, City Councillor and LRCA Board Member Ken Boshcoff and LRCA Chairman Bill Bartley all participated in the sign unveiling.



In Ontario the monitoring of weather and flood conditions is a shared responsibility of Conservation Authorities, Ontario Ministry of Natural Resources (MNR) and Environment Canada. MNR monitors flows and levels of watercourses and weather forecasts at a Provincial level and issues Conservation Authorities provincial flood messages. Conservation Authorities also monitor flows and levels on watercourses and weather forecasts within their area of jurisdiction at the local level. Environment Canada monitors the weather and provides weather forecasts to the public and agencies.

When warranted, based on the local analysis, Flood Messages related to possible or occurring riverine flooding are issued by the Lakehead Region Conservation Authority (LRCA) for the Authority's Area of Jurisdiction. MNR Districts provide this service to areas not covered by Conservation Authorities.

The LRCA Flood Warning System operates most effectively with significant rainfall events with at least 12 hours forecast time. It is not designed to predict flood warnings as a result of high intensity, short duration thunderstorms.

There are three levels of Flood Messages issued by the LRCA: Watershed Conditions Statements (Water Safety and Flood Outlook), Flood Watch and Flood Warning (see below chart for more detailed information).

FLOOD MESSAGING ISSUED BY THE LRCA

	NORMAL: Conditions are within NORMAL limits. No flooding is expected.
	WATERSHED CONDITIONS STATEMENT - WATER SAFETY: High flows, unsafe banks, melting ice or other factors could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.
	WATERSHED CONDITIONS STATEMENT - FLOOD OUTLOOK: Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions.
	FLOOD WATCH: Indicates that there is the <u>potential</u> for flooding within specific watercourses and municipalities.
	FLOOD WARNING: Indicates that <u>flooding is imminent or occurring</u> within specific watercourses and municipalities.

THE DIFFERENCE BETWEEN LRCA FLOOD MESSAGES AND ENVIRONMENT CANADA WEATHER STATEMENTS

Environment Canada also issues Weather Statements to the public which are based on their public alerting criteria and use some of the same wording; however, these statements are based on their specific weather related criteria. Some examples include:

- **SHORT DURATION RAINFALL EVENT WARNING:** Issued when 50 mm or more of rain is expected within one hour.
- **RAINFALL WARNING SUMMER:** Issued when 50 mm or more of rain is expected within 24 hours; or when 75 mm of rain is expected within 48 hours.
- **RAINFALL WARNING WINTER:** Issued when 25 mm or more of rain is expected within 24 hours.
- **SEVERE THUNDERSTORM WATCH:** When conditions are favourable for the development of severe thunderstorms with one or more of the following conditions: wind gusts of 90 km/hr or greater; hail of two cm or larger in diameter; or heavy rainfall, per rainfall criteria (excluding winter).
- **SEVERE THUNDERSTORM WARNING:** When there is evidence based on radar, satellite pictures, or from a reliable weather spotter that any one or more of the above listed conditions in the "severe thunderstorm watch" are imminent or occurring.

Even though Environment Canada has issued a rainfall or severe thunderstorm watch or warning, the rainfall amounts may not result in riverine flooding; therefore, the LRCA will not issue a Flood Message related to the rainfall event.

Lakehead Region WATERSHED Report Card 2013

The standards used in this report card were developed by Conservation Authorities to ensure consistent reporting across the Province of Ontario and are intended to provide watershed residents with information to protect, enhance and improve the precious resources that surround us. Updates to standards are being developed to better represent Northern Ontario's environment.

Grading

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor

What Does This Report Card Measure?



Surface Water Quality



Forest Conditions



Groundwater Quality

Why Measure?

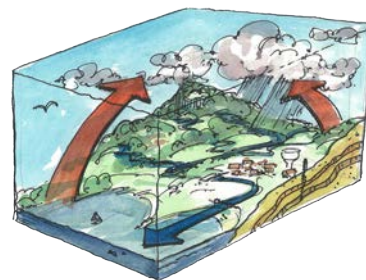
Measuring helps us better understand our watershed. It helps us to focus our efforts where they are needed most and track progress. It also helps us to identify healthy and ecologically important areas that require protection or enhancement.

What is a Watershed?

A watershed is an area of land drained by a river or stream.

Similar to the branch of a tree, creeks empty into streams, which then empty into larger streams, eventually forming one main trunk.

Within this system, everything is connected to everything else. In other words, actions which take place at the top of the system can and do affect those downstream.



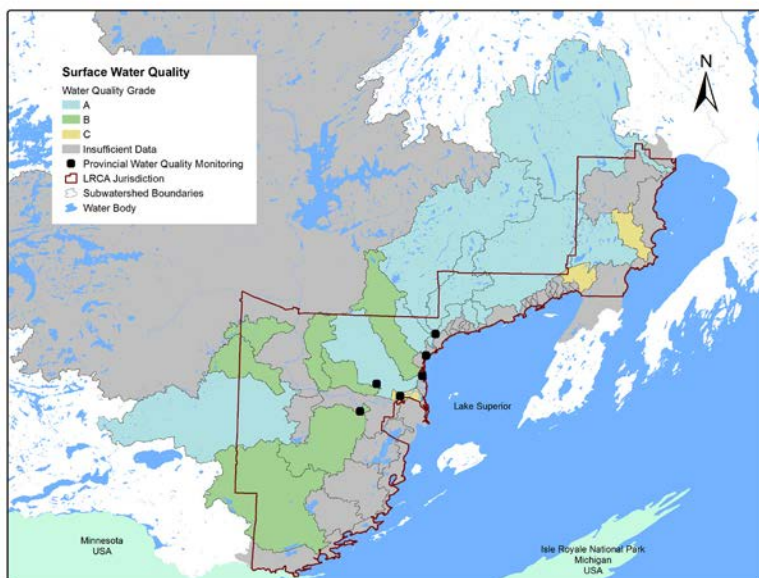
PLEASE NOTE: The Watershed Report Card contained herein highlights excerpts from the full Lakehead Region Watershed Report Card 2013, which is available from the LRCA Administrative Office and on our website. Please contact us for more information.



Surface Water Quality

B

Surface water quality is based on water chemistry and the species that live within the aquatic ecosystem. Many factors can influence this including: climate and precipitation, soil type, geology, vegetation, groundwater and human impacts.



The surface water quality within the Lakehead Region, was graded based on phosphorus and *Escherichia coli* (*E. coli*) levels. Benthic invertebrate data was not used during this assessment due to a lack of available data. Phosphorus is a nonmetallic mineral that occurs naturally in surface waters, but can occur in excess from the addition of soaps, detergents, pesticides and fertilizers. High concentrations of phosphorus contribute to excessive algae growth and low oxygen levels, which can have negative impacts on other plants and animals. *E. coli* are bacteria found in human and animal waste, which can cause illness if ingested.

Data was obtained through surface water sampling in 19 subwatersheds. Six subwatersheds are sampled in partnership with the Ministry of Environment's Provincial Water Quality Monitoring Network (PWQMN) and is based on five years of sampling data. The remaining 13 subwatersheds were sampled during the completion of LRCA watershed assessments, conducted annually between 2003 to 2013. Data is based on one sampling year for each subwatershed, as only one is focused on each year.

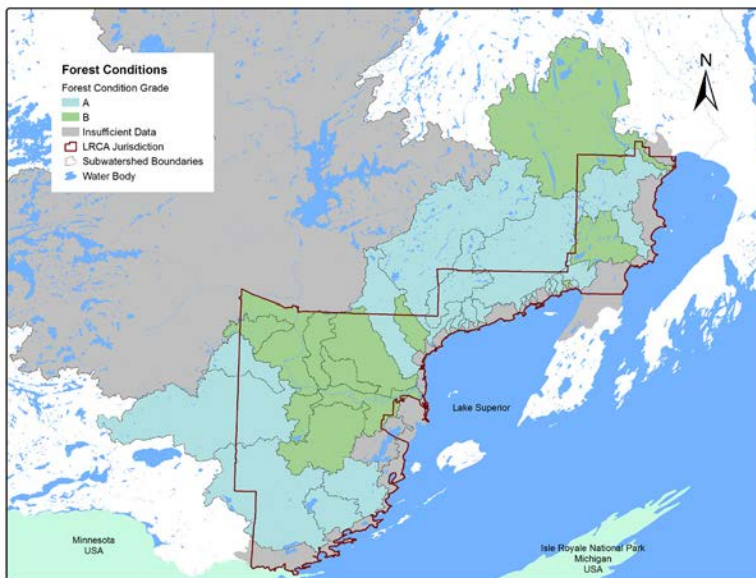
The Lakehead Region received an overall grade of B based on the subwatershed grades which ranged from A to C. This indicates that the surface water quality within the Lakehead Region is healthy. As a community, efforts should continue to be made to maintain and improve our water quality.



Forest Conditions

A

Forest cover is a good indicator of ecosystem health, supporting biodiversity and contributing to water quality. As a part of Northern Ontario, the Lakehead Watershed falls into the Boreal forest region of the province. Many species in the Boreal region require large un-fragmented areas of forest.



Forest habitat is evaluated by the amount of cover, interior habitat and riparian areas that are forested.

Considerable forest cover is required to sustain a healthy level of biodiversity within a watershed. Forest interior is important, as it provides significant habitat for those species that require undisturbed, deep forest habitat, 100 metres or more, from the forest edge. The riparian zone is measured as all forested area 30 metres adjacent to open water. It helps to improve water quality by slowing flow, filtering and absorbing contaminants, providing habitat for wildlife and shade for aquatic species, as well as preventing streambank erosion.

The LRCA GIS data used to assess forest conditions reveals that our watershed supports substantial forest cover, with 79% of the land being forested. Interior forest comprises 53% of the forest cover, providing the large un-fragmented plots of forest required by moose, black bear and songbirds. Within the Lakehead Region Watershed, 56% of the riparian zone is forested assisting with erosion control and water quality. A grade of A was given to Forest Conditions due to good overall forest cover, with only some fragmentation

evident from the interior forest values, and approximately half of the riparian zone being forested. The subwatersheds' individual scores ranged from A to B.



Groundwater Quality

A

Groundwater is found below the Earth's surface in soil and aquifers. The natural quality of groundwater is determined by the geology of the area. Human impacts such as road salting, agricultural practices and storm water runoff can alter the water quality. Groundwater can carry contaminants to nearby surface water, harming life in the ecosystem. It can also contaminate drinking water wells, causing unpleasant tastes and odours as well as illness.



The groundwater quality is based on nitrate+nitrite and chloride levels; bacteriological quality was not considered due to an absence of data. Nitrate+nitrite are forms of nitrogen found naturally in the environment. Other sources of these compounds are fertilizers, septic systems and pesticides. High nitrate levels in drinking water can cause illness. Chloride is a naturally occurring element in groundwater. Elevated levels can occur due to the surrounding rock type or due to human impacts such as landfill leachate, road salt and water softeners. Chloride is generally not harmful to humans, unless on a sodium restricted diet, but the water can have a salty taste when levels are above the Aesthetic Objective of 250 mg/L.

The data used for this report card was collected in partnership with the Ministry of Environment, through the Provincial Groundwater Monitoring Network (PGMN) at nine wells located throughout the Lakehead Watershed. At this time the data is insufficient to identify trends in the state of the watershed's groundwater, as the data only represents the water within a small number of wells and therefore not

representative of the entire watershed. Currently, a general statement can be made that the groundwater quality is excellent in the majority of the sampled monitoring wells, scoring As in all but one well, which scored a C, due to elevated nitrate+nitrite.

PARTNERSHIPS

Partnerships are one of the ways which enable the LRCA to accomplish many valuable projects in the watershed.

Ontario Power Generation (OPG) is a generous supporter of the LRCA. In 2013, OPG pledged support toward the Mission Marsh Learning Trails Education Event; the installation of the first in a series of four interpretive panels along the Mission Marsh Learning Trails; Arbour Week; Fall Waterfowl Viewing Day and Mission Marsh's viewing scopes. These contributions are greatly appreciated. The LRCA also received support from the Government of Canada's Recreational Fisheries Conservation Partnerships Program for work completed at Mission Island Marsh Conservation Area in attempt to prevent further erosion of the shoreline. The Ministry of the Environment's Great Lakes Guardian Community Fund was also awarded to the LRCA in 2013. These funds were used to complete a shoreline rehabilitation planting at Mission Island Marsh Conservation Area, as well as for the fabrication and installation of a historical interpretive panel outlining the history of Mission Island.

Along with their contributions to the Tree Seedling Assistance Program, Hydro One also sponsored and participated in the LRCA's Arbour Week activities.

The Thunder Bay Field Naturalists is another organization that assists the LRCA by lending their considerable expertise through assisting with Fall Waterfowl Viewing Day. Members of Dorion's Canyon Country Birding Festival organizing committee regularly assist LRCA Staff with identifying bird species found in our Conservation Areas. Dr. Leonard Hutchison of Lakehead University also assisted with the LRCA's Fall Mushroom Workshop.



LAKEHEAD CONSERVATION FOUNDATION

The Lakehead Conservation Foundation (LCF) raises funds for the Lakehead Region Conservation Authority, specifically for the LRCA's Environmental Education programming. The funds are raised through several events held during the year, including the Annual Fundraising Dinner & Auction.

The 2013 Fundraising Dinner & Auction was held on February 7, 2013 and raised over \$24,000.00. Tickets for the 2014 Conservation Dinner & Auction, to be held on February 6, 2014, are on sale now. Contact the Authority office for your tickets as soon as possible, as they sell out each year.

LCF President Phil Jarvis presented Authority Chairman Bill Bartley with a cheque for \$25,000.00 for the LRCA Environmental Education Program at this year's annual LCF cheque presentation. (Pictured at right.)

If you or someone you know is interested in volunteering or becoming a Foundation Member, contact the LCF at (807) 345-2377.



LCF BOARD MEMBERS:



Phil Jarvis- President
 Garry Maxwell- Vice-President
 Melody Lundstrom- Secretary
 Nicole Gagnon- Treasurer
 Shelly Brown
 Doug Guinn
 Darlene Guinn
 Marlene Jarvis
 Richard Longtin
 John Palko
 Mary Provenzano
 Paul Straiton





PLANNING & 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 regulates development in areas where the control of flooding, erosion, pollution or conservation of land may be affected.

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.

As of November 2013, a total of 59 permits were issued. Permits are issued by the LRCA Board, which meets once a month. Property owners are advised to submit applications as early as possible to allow for adequate evaluation and permit processing time. Contact us for more information.

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 2013, comments were provided on 194 Planning Act applications (as of November 2013).

FLOOD FORECASTING & 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 2013, two Watershed Conditions Statements, three Flood Outlook Statements, two Flood Watch and one Flood Warning Message were issued during three separate events.

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



NEEBING-MCINTYRE FLOODWAY

The Neebing-McIntyre Floodway consists of three main components: the diversion structure; the diversion channel; and the widened and deepened floodway out to Lake Superior. The purpose of this engineering marvel is to provide flood protection for the intercity area.

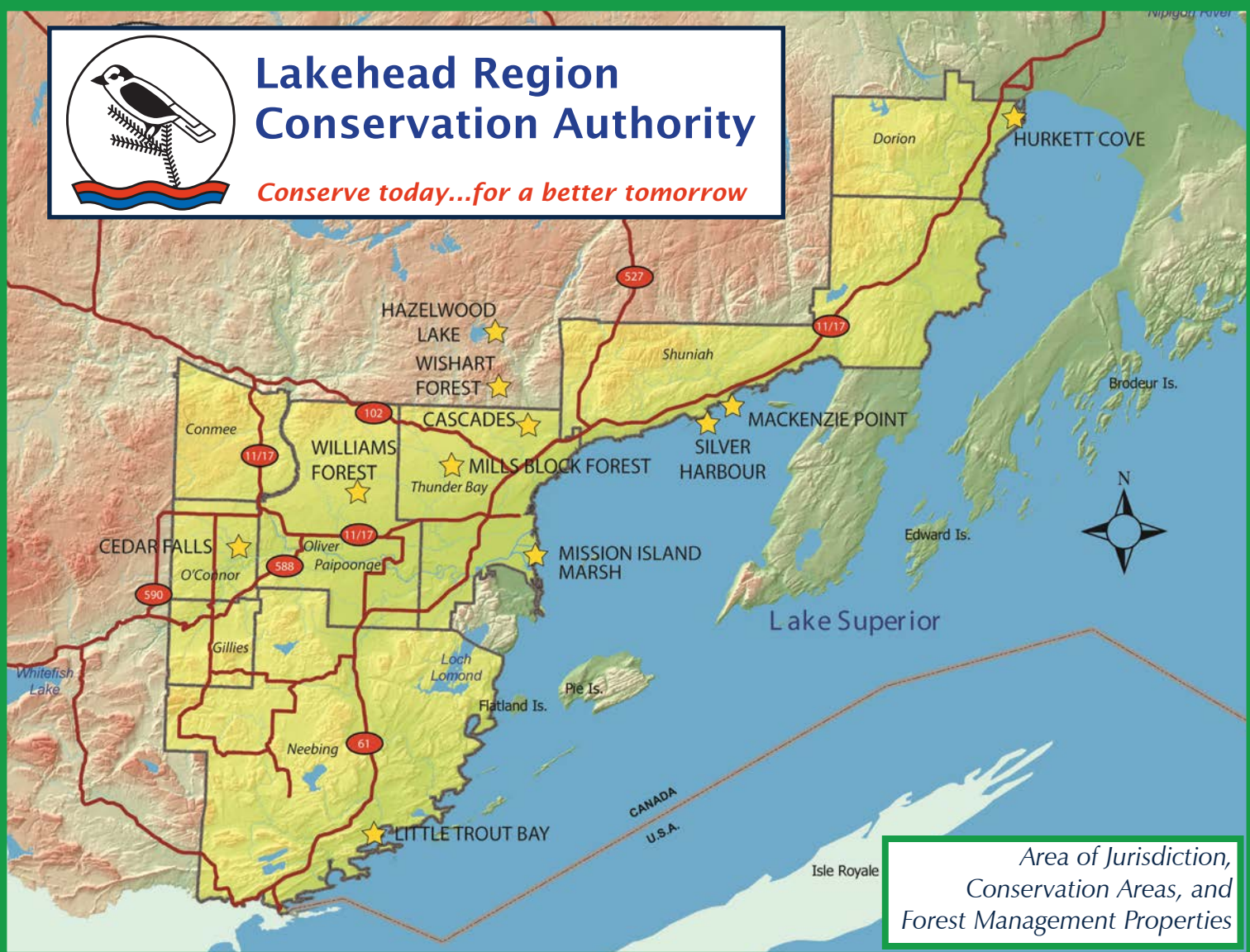
The Neebing-McIntyre Floodway does not need to be turned on in order to operate. Everything works automatically. During high water events the Floodway operates without any required actions. The Diversion Structure limits flows down the Neebing River and diverts excess flows into the 1.5 km Diversion Channel which directs excess flows to the widened, deepened Neebing-McIntyre Floodway 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 about every 7 years or so. This maintenance ensures that the Floodway remains operational and capable of handling rainfall up to and including the Regional Storm. An integrity study is being conducted on the Floodway during 2013/14 to ensure it is continuing to operate as designed.

Although capable of handling the Regional Storm, the floodway does operate during smaller rainfall events. For example, during 2013 the Neebing-McIntyre Floodway diverted flow for a total of 14 days during spring freshet and two rainfall events.



Lakehead Region Conservation Authority

Conserve today...for a better tomorrow



Area of Jurisdiction,
Conservation Areas, and
Forest Management Properties

LAKEHEAD REGION CONSERVATION AUTHORITY
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www.lakeheadca.com info@lakeheadca.com

E-mail us to sign up for our E-Newsletter, released every two months. It contains valuable information about the LRCA, our Conservation Areas, special events and so much more!

LRCA ESTABLISHED 1954

Member of



Conservation
ONTARIO
Natural Champions

