



annual report



Lake Simcoe Region
conservation authority



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Message from our CAO

Growth & Change



It's an exciting time to be at the helm of the leading environmental protection agency in the Lake Simcoe watershed.

For more than 60 years, Lake Simcoe Region Conservation Authority has devoted itself to protecting the magnificent natural beauty that is Lake Simcoe and its watershed.

It's hard to believe I've been with LSRCA for more than half of those 60 years, assuming the role of Chief Administrative Officer/Secretary-Treasurer this past October when Gayle Wood retired after almost 20 years in the role.

This watershed is where I live. It's where I work. It's where I hope to always be. I am immensely proud of this organization - what we are and what we do. On the pages that follow, you'll discover highlights of our progress this past year.

Our protection efforts often face many challenges. The answers are not always clear cut or simple and require action on many fronts. Our strategic plan has been our guide, ensuring we stay focused on the big picture. I look forward to developing our new strategic plan in 2015.

I also look forward to addressing some of the biggest and most pressing challenges we have to face: pressure from population growth and climate change. Both require a change in the way we do things, the willingness to collaborate and the need for careful planning. It will be my goal to see that we embrace change, plan for the future, and build consensus on these issues.

Mike Walters, Chief Administrative Officer



4,225

The number of kilometres of river and stream channels in the watershed

Message from our Chair

Making a Difference



Some of you may know of Loren Eiseley's story about a man who attempts to save thousands of starfish that lay dying along miles and miles of beach.

This man is walking along the beach, picking up starfish, one by one, and throwing them back into the water. A passer-by stops and asks why he's doing it and comments on his foolishness... "Why bother? You can't possibly make a difference."

The man picks up a starfish, throws it into the deep water and replies, "I made a difference to that one."

It's easy to be overwhelmed and disheartened by what may seem like the insignificance of our individual actions, but the point of this story is that our individual actions can and do make a difference. If you are reading this, you probably care about this watershed and the future of your children, and your children's children. You may already be doing your part to help protect this watershed. But just in case you need some inspiration, here are a few of the ways we could use your help:

- Volunteer at one of the dozens of tree-planting events we host each year. They usually run only a few hours and give you a chance to enjoy the outdoors with your family and friends while doing something good for your community and the watershed.
- Help us expand public participation by following us on social media and sharing our stories and events with your family and friends.
- Donate to Lake Simcoe Conservation Foundation. Your money goes directly to projects that improve the health of the watershed.
- Nominate a worthy person or group for a Conservation Award. Our annual awards recognize and celebrate the many people engaged in voluntary environmental activities that are making a positive difference in the watershed.

This report gives you a glimpse into the positive impact of our work. I'm proud to be a part of this tremendous organization, working with you – each one of us doing our own small part, but adding up to so much more.

Debbie Bath, Chair
Board of Directors



2014 Highlights



Back by Popular Demand

Our outreach education is continually expanding: staff from multiple divisions facilitated a two-day interactive conservation program for two Barrie high schools. Over 200 students participated in an experience that they will carry with them forever.

Outdoor education provides experiences that students will carry with them forever.



Expanding our Reach

With support from Ducks Unlimited, LSRCA educators provided a half day training session for 16 York Region teachers, giving them the tools they need to offer their own outdoor education program.

As part of the training, we provided the teachers with a resource kit designed to decrease the barriers associated with the transition to outdoor lessons.

The resource kits – developed through the support of the Lake Simcoe Conservation Foundation – will continue to be integrated into future training of watershed educators. We also provided similar environmental education training to 60 Simcoe County District School Board kindergarten teachers at a “Hands in the Dirt” conference.



Tree Sanctuary

LSRCA stepped up to provide a new home for about 30 trees from the Scotch Settlement Arboretum, which finds itself in the path of the new Line 5 interchange. The trees will live at the Scanlon Creek Arboretum.

Arboretum (defined):

In the narrow sense, it's a collection of trees. What makes an arboretum unique is that the collection is either botanically significant or houses a variety of examples rather than just a few kinds.

Knowledge Based Decision Making



Acting on Subwatershed Plan Recommendations

Our outreach is broad ranging. We work with a variety of other agencies, contractors and municipalities to enhance knowledge and promote best practices around important watershed topics like the application of salt in winter, low impact development, wildlife passage, and sediment and erosion control practices.

Giving Way for Wildlife

In December we held a workshop for municipal and conservation authority staff to explore ways to promote wildlife passage in municipal infrastructure projects. As development continues, wildlife habitat is further encroached upon. This workshop offered tools and tips to reduce wildlife mortality along roads, strategic approaches to incorporate road ecology in municipal transportation planning and environmental assessments.



Above: LSRCA researchers collecting fish for contaminant sampling

963

The number of water samples collected for ecological health monitoring of Lake Simcoe and its tributaries.

Fairy Lake Fish Sampling

LSRCA researchers spent a September morning with staff from the Ministry of the Environment and Climate Change (MOECC) and Toronto and Region Conservation Authority collecting fish for contaminant sampling for MOECC's Guide to Eating Sport Fish in Ontario publication.

Preparing for Georgina Island Subwatershed Plan

LSRCA researchers worked with researchers from University of Toronto as well as staff from the Chippewas of Georgina Island to undertake ecological and water quality sampling needed to prepare a subwatershed plan in 2015/16. Streams were sampled for fish, benthic invertebrates (aquatic bugs), water temperature and water quality. Forested conditions were assessed at 29 locations and the shoreline assessed for restoration opportunities.

Sharing our Science with Schools

We do a lot of work with local schools, connecting student learning with the research and fieldwork we undertake. We shared our sampling results for Leonard's Creek in Innisfil with two different grade 4 classes at Alcona Glen Elementary School. Students gain an appreciation and understanding of a real creek study and are encouraged to use this information to further their own observations and undertake their own actions to protect the Creek.

Publications

Our lake doctor, Dr. Brian Ginn, published two articles this year. The first article was based on Phoslock™ research by our former post-doctoral fellow Melissa Moos and was published in the *Journal of Environmental Management*, with co-author fellow LSRCA researcher, Dr. Ben Longstaff, and Dr. Kathryn Taffs from Southern Cross University in Australia.

The second article is a collaboration with the Ministry of Natural Resources and Forestry on how zebra mussels cycle phosphorus and energy in Lake Simcoe, published in the journal *Freshwater Biology*.

Maintaining our Water Supplies for the Future

Meeting our commitments under the Lake Simcoe Protection Plan, water budget studies have now been completed for every subwatershed in the Lake Simcoe basin. This is an exciting turning point since it means we now have groundwater flow models that help us improve the management of our water resources. Groundwater models help us develop ecological flow targets and predict ecological impacts from development, water usage and climate change.

Water budgets (defined):

Water budgets tell us about water availability. Just like a household budget tells us how much money we have, water budgets tell us about the status of our water supplies.

Drinking Water Source Protection Plan Completed

Ministry of Environment and Climate Change comments were incorporated into the South Georgian Bay Lake Simcoe Source Protection Region's Drinking Water Source Protection Plan and Assessment Reports, and public consultation took place in the spring. Submission of the final plan happened in July and approval is imminent, expected to take place in early 2015. This is an important milestone in a long term strategy to protect municipal drinking water in Ontario.

Groundwater models (defined):

Groundwater models are computer models that represent the layers of soils and rock beneath the ground and how the groundwater moves through these layers. Groundwater models are used by hydrogeologists to simulate and predict aquifer conditions.

Prioritizing Restoration Efforts

Our resources are limited, so making sure we get the most impact out of our restoration work is essential. This year we developed a suite of tools to help prioritize where to restore fish habitat, undertake reforestation and complete low impact development initiatives. Projects were prioritized based on factors such as environmental benefit, probability of success and cost. We hope to share these tools with our partners in the very near future.

PROJECT VALUE =

benefit × probability of success

cost

Practical Solutions for Healthy Communities

New Grant Category: Rain Gardens

In keeping with our watershed changes, our grant program is branching out into the urban realm. Urban landscapes can be significant sources of phosphorus and other contaminants that ultimately make their way to Lake Simcoe. Urban landscapes also affect the water flow and balance in the watershed. Under our new RainScaping program, we have been involved in creating demonstration sites that show the benefits of rain gardens in urban environments. The purpose of these sites is to provide members of the public real life examples of how they look and work. We hope to continue installing rain gardens across the watershed.



Above: Trail building with Durham Mountain Bike Association

Durham Forest Trails

Our collaboration with the Durham Mountain Bike Association and other local community groups continues to benefit the Durham Forest. Last year, our partnership resulted in an additional two kilometres of new sustainable trails. Sustainable trails are more erosion resistant, avoid damaging sensitive natural heritage features and enhance the forest experience for visitors.

LEAP by the numbers

57,200

trees and shrubs planted

158

projects
completed

5.9

kms of
streambank
restored

224

hectares
planted

14

community
workshops held

21

community events
participated in/
hosted

\$1,810,694

dollar value of all
projects implemented

Expanding our Lands

Twelve hectares (32 acres) of land within the East Holland River subwatershed has been acquired that expands our Rogers Reservoir Conservation Area and allows us to extend public trails along the East Holland River. Part of the property is in the floodplain and contains approximately 900 metres of the East Holland River, including remnants of the historic Newmarket Canal. The area also contains threatened and endangered bird species including Bobolink and Eastern Meadow Lark.

We're also pleased with the continuing expansion of our land holdings in the Beaver River Wetland – an additional 38 hectares (95 acres) of land near the village of Blackwater. With this acquisition, the Beaver River Conservation Area has now become LSRCA's largest conservation area, covering 471 hectares (1,165 acres).



2,170

**The number of
hectares of land
we own or manage**



Scanlon Creek Conservation Area

There are always so many wonderful community-minded activities taking place at Scanlon Creek. Two volunteer days in 2014 helped us plant a butterfly garden, remove invasive plants, clear brush in the arboretum and improve our trail system. We are so thankful to the Friends of Scanlon Creek, who really make these events such a success!

Run for the Trails a Wild Success

Our first-ever "Run for the Trails" fundraising event was a huge success. Close to 75 runners took part, raising almost \$3,000. The money will go back into Scanlon to support further trail improvements.

Restoring Scanlon Creek

Work continues on establishing a natural channel through the area where the Scanlon Creek reservoir once existed. In 2014, we developed project plans, obtained approvals and permits and completed our designs. In-the-ground work is now starting with removal of the last obstruction for fish habitat and migration. By next year, Scanlon Creek will be flowing freely around the dam for the first time in 45 years.

New Environmental Compliance Officer

This brings the number of officers on staff to three (3) in a watershed that is 3,400 square kilometres. Our environmental compliance officers investigate instances where property owners have not obtained the necessary approvals and permits. In many cases, property owners didn't know about the requirements. Our officers are out in the field working to ensure compliance with regulations and that development is undertaken in accordance with the permits issued by LSRCA.

Tree Planting

Trees offer a variety of environmental benefits that include cleaning the air and water, enhancing biodiversity and addressing the impacts of climate change. Our team of professional staff work with landowners and the community to develop planting opportunities and coordinate the work. We hold many community events where we invite local community members to participate in a public planting. Many take place with private landowners that have larger plots of land and wish to dedicate them to environmental benefits.

In 2014, we planted 57,200 trees and shrubs. This has taken place through 44 separate planting projects (that's equivalent to almost 4 planting events every month!).



Holland Marsh Plantings

In an effort to reduce soil erosion in the highly valuable Holland Marsh, we planted over 10,000 trees and shrubs with the farming community along watercourses, through 13 separate planting projects. In these plantings, we used 15 different native species to promote biodiversity, encourage local wildlife and help stabilize the streambanks.

Keeping Our Soil on the Ground

Significant soil erosion occurs during the winter season when harvested fields are left bare for the winter. We support efforts by farmers who are willing to try new ways of protecting their soil, like planting Tillage Radish on their fields for over-wintering.

An Innisfil farmer (pictured above), shows the winter cover crop of Tillage Radish that is going to protect his soil from erosion, help with aeration and keep weeds down. Funding support from our LEAP program made this project possible.

By supporting farmers who are willing to try new ways of protecting their soil, we are helping them reduce erosion, aerate the soil and keep weeds out.

Community Heritage Garden

The community asked, and we delivered! A Community Heritage Garden was established at Sheppard's Bush Conservation Area this year, with the help of local volunteers. Twelve garden plots were available for the public to lease, and in its inaugural year, nearly every one was filled with herbs and veggies. On site, gardeners had access to water collected in rain barrels and a shed to store their garden tools. The garden promotes the use of heirloom vegetables and organic garden practices and also provides an opportunity for friends and neighbours to connect with nature and with each other.



7

The number of municipalities that get their drinking water from Lake Simcoe.

Facing the Future

Low Impact Development

Our watershed communities are growing. One major way we can reduce our impact is by ensuring that new development takes place using the most sustainable practices.

New Development

The best course of action is to build sustainability into new development before shovels even hit the ground.

Working with municipalities and developers, LSRCA has held numerous RainScaping workshops across the watershed to promote Low Impact Development. We're really pleased to have experts who have already done this to help us introduce the concept here, experts like Jay Michels, Project Manager with Emmons & Oliver Resources in Minnesota. Jay is a well-known and respected educator on Low Impact Development.

Low Impact Development projects are taking shape in several locations throughout the watershed.

Low impact development is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible.

The goal is to reduce the amount of stormwater running along paved surfaces and entering our streams and rivers, and ultimately the lake.

Existing Development

Things can be done to reduce the environmental footprint of your home even after it's been built. Rain gardens are an example. A rain garden is a landscaped feature on your lawn that collects stormwater from your roof, driveway and lawn and allows it to seep into the ground, rather than running along the road and entering the storm drains.

Through the new "RainScaping" category in our Landowner Environmental Assistance Program (LEAP), landowners in urban areas can apply for funding to undertake a similar project on their property. The result is a beautiful addition to your property that contributes to a cleaner and more sustainable watershed.

“ Low impact development is a critical step in building a sustainable future. We're pleased that LSRCA has championed low impact development in our community by working with us and the development industry to make this innovative approach to design a reality.”

– Neil Garbe, *Chief Administrative Officer*, Town of Aurora

773

The number of applications submitted for development within a regulated area under Ontario Regulation 179/06

213

The number of enforcement complaints received regarding development in a regulated area under Ontario Regulation 179/06

29

The number of charges laid in Provincial Offences Court for undertaking development within a regulated area under Ontario Regulation 179/06 without obtaining necessary approvals under the Conservation Authorities Act



Before

Residential Rain Garden

After



“ We are super pleased with the whole job!

The garden is beautiful. Lots of interest from neighbours already! It is a perfect demonstration site....every beautiful water drop will be used and/or retained.

Thanks for everything!”

– Landowner

Making Our Work Relevant and Meaningful

Celebrating Environmental Champions

Each year at our Conservation Awards ceremony, we celebrate the dedication of groups and individuals who contribute to the health of our watershed. This year, we honoured 22 groups and individuals for their voluntary environmental achievements.



1,233 Twitter followers

405 Facebook likes

66 Instagram followers

16 YouTube subscribers

Conservation Kids

Our Conservation Kids Summer Camp, offered at Sheppard's Bush in Aurora, hosted 173 children through the summer camp season, resulting in 5,530 learning hours.

Thanks to funding provided by North Newmarket Lions through the Lake Simcoe Conservation Foundation, eight children were sponsored to take part in the camp who otherwise wouldn't have been able to attend.

Science Minded

We actively encourage the growth of young minds in the pursuit of science by participating as judges and providing prize money for the Simcoe County Science and Technology Fair, the York Region Sci-Tech Fair and the Durham Region Science Fair.

“ Camp was so much fun.

We went hiking. We searched for teeny, tiny bugs that live in algae. We learned about insects and got to touch dead stuff! I made four friends. I would love to go back next summer!

Can I go back?”

– Trevor

Making Science Relevant

Three new editions of our popular “Lake Simcoe Science” publications were released this year, focusing on Low Impact Development, Phosphorus, and Winter Salt. These publications are also a regular feature in the print and online versions of Lake Simcoe Living Magazine.

Outdoor and Environmental Education

Our outdoor and environmental education program continues to thrive, with 18,495 learning hours of programming delivered at Scanlon Creek Nature Centre.

Students Set Roots – in Water

We brought together kindergarten to grade 5 students from each of two local schools (Waabgon Gamig School from Georgina Island First Nation and Morning Glory Public School in Pefferlaw) to help grow native aquatic plants from seed and then transplant them into the lake. The children learned about the value and benefit of native aquatic plants and the problems with invasive species. Both schools expressed interest in participating in the program again next year.

From left: Conservation Awards Ceremony;
Camp Oochigeas; Maskingonge Planting



Reaching Out

Our classroom outreach program reached over 2,700 students across the watershed, from kindergarten to grade 12. We reached another 200 youth through our family programs: Maple Syrup and Kick-sledding activities, including programs offered during the Friends of Scanlon Creek Family Day event.

Our Maple Syrup and Kick-sledding programs ran special programming specifically for children from Camp Oochigeas, which provides year-round activities for children and families affected by childhood cancer.

During the summer months, we attended 14 fairs and festivals throughout the watershed and provided promotional materials for others. These events, such as the Windfall Ecology Festival, Georgina's SPLASH Water Festival and Barrie Ecofest, provide great opportunities to connect with our community and to connect our communities to the Lake Simcoe watershed.

6,500

**The number of students
we engaged directly
in environmental
education programming**



We were featured numerous times on local television shows, such as Georgina Life on Rogers TV in York Region and Daytime on Rogers TV in Barrie. In 2014, LSRCA staff appearances were made on topics such as well decommissioning, the Barrie Creeks project, our LEAP program, and aquatic plants. All these shows can be found on our YouTube channel: [youtube.com/thelsrca](https://www.youtube.com/thelsrca).

Success Through Leadership and Innovation

Twinning Update: Mission 4

Two LSRCA staff and 5 representatives from the Ayuquila-Armeria River Basin in Mexico travelled to Pittsburgh, Pennsylvania to attend “River Rally 2014”. Besides having the chance to network with other river advocates, this event gave us the chance to work on Phase 4 of our Twinning Project – Developing an Integrated Project Planning and Implementation Tool for the Ayuquila-Armeria River Basin.



Enhancing Accountability

With Freedom of Information (FOI) requests on the rise, we enhanced our service to allow for requests to be made through an online form on our website.

Left: LSRCA staff and representatives from the Ayuquila-Armeria River Basin at River Rally 2014

13

The number of Freedom of Information requests received in 2014

Enhanced Data and Mapping

We collect and compile huge quantities of data which is most readily communicated through maps.

In 2014, we finalized a four-year update to our hazard mapping. The update combines engineering studies, collaboration with partners and consultants, the work of LSRCA technical and field staff and improved technology to reflect our developing and ever-changing watershed.

We've also renewed our (YorkInfo) partnership with York Region for another 5 years to share our respective data and mapping assets.

We've identified and mapped the watershed's road salt vulnerable areas and have offered that information to municipalities to help with their salt management plans.

We're Prepared

In the event of an emergency, we now have a back-up system in place in the form of an emergency generator that was installed this past summer. This means we can perform our critical emergency management role even in the event of a power failure.

16

The number of bulletins issued advising of potential unsafe conditions due to flooding



Financial Summary

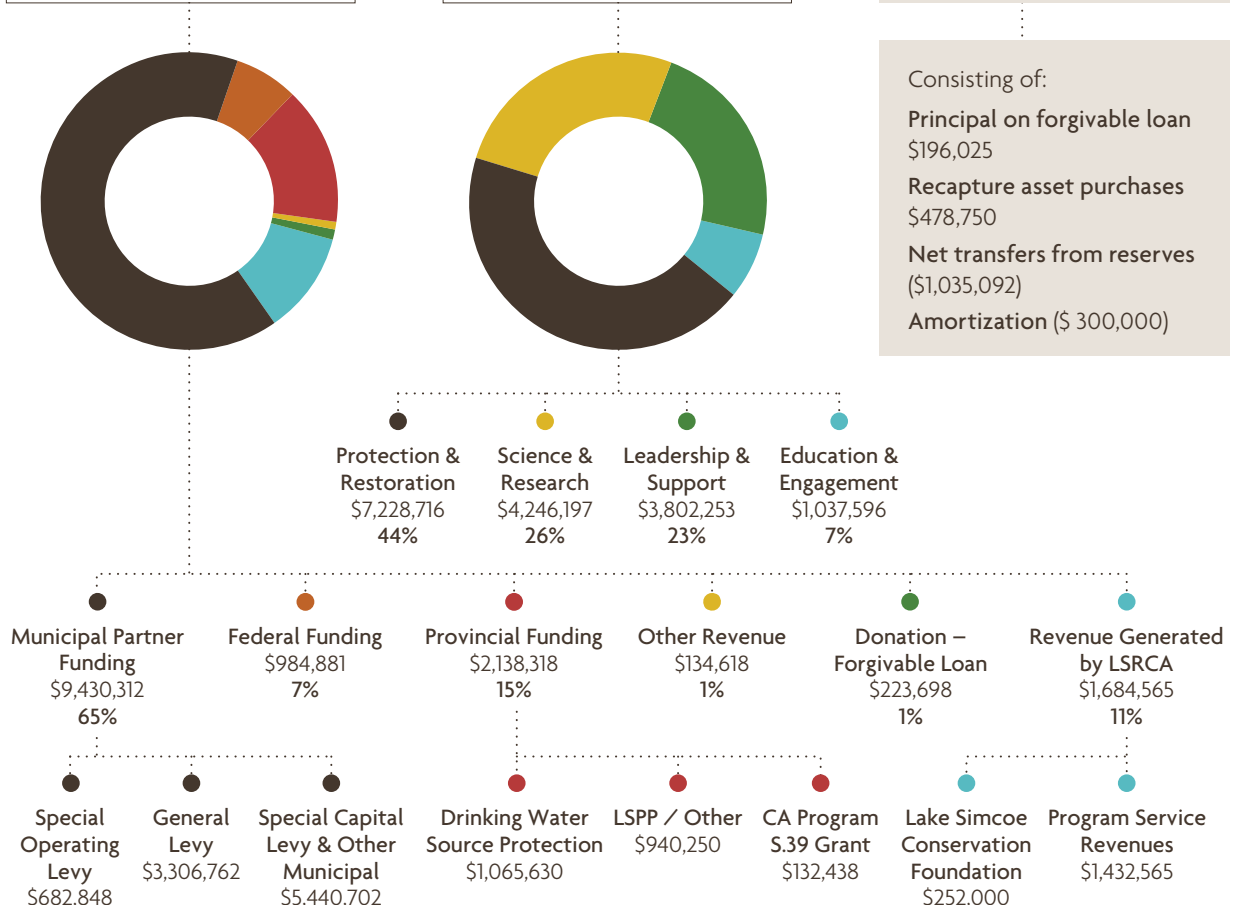
This financial information is condensed from the April 25, 2014 Board of Directors' approval of the 2013 Audited Financial Statements and the 2014 Budget Summary. The complete auditor's report for the year ended December 31, 2014 is anticipated to be available in May 2015, copies of which will be available upon request.

Condensed Statement of Financial Position As at December 31, 2013

Net Financial Assets		Non-Financial Assets		Accumulated Surplus *
\$1,969,118	+	\$8,583,690	=	\$10,552,808

Condensed Projected Statement of Operations For the year ending December 31, 2014

2014 Revenues		2014 Expenditures		Projected Deficit ***
\$14,596,391	-	\$15,256,708 **	=	(\$660,317)



* Since LSRC's inception in 1951, the accumulated surplus as at December 31, 2013 is \$10,522,808

** Total 2014 Expenditures \$16,314,762, net of: Internal Fee for Service (\$879,304); Asset Purchases \$300,000; and, Amortization (\$478,750)

*** The projected deficit will be offset by surpluses from prior years

Lake Simcoe Region Conservation Authority

LSRCA is a local watershed management agency dedicated to conserving, restoring and managing the natural ecosystems in the Lake Simcoe watershed.

We are one of 36 conservation authorities in Ontario, legislated by the Conservation Authorities Act (1946). We are governed by an 18-member board of directors, appointed by nine member municipalities.

Our mission is to provide leadership in the restoration and protection of the environmental health and quality of Lake Simcoe and its watershed. At the core of our work is our municipal, community and other government partnerships.

LSRCA's jurisdiction has grown over our 63 year history and today includes the entire Lake Simcoe watershed with the exception of the City of Orillia, the Upper Talbot River subwatershed and First Nations' lands.

2014 Board of Directors

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Durham Region
TOWNSHIP OF BROCK
Regional Councillor &
Deputy Mayor Debbie Bath

VICE-CHAIR

York Region
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Mayor Geoffrey Dawe

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Councillor Stephen Strangway

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TOWN OF
WHITCHURCH-STOUFFVILLE
Councillor Ken Ferdinands

Town of New Tecumseth
Councillor Bruce Haire

Township of Oro-Medonte
Councillor Dwight Evans

Map (right)

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The following datasets: road, first nation and municipal boundary are
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Legend

LSRCA Jurisdiction

Upper Talbot Subwatershed

Watercourse

Major Road

Upper and Single Tier Municipality

Lower Tier Municipality

First Nations

LSRCA Member Municipality



Lake Simcoe Region
conservation authority



Lake Simcoe Region Conservation Authority (LSRCA) is the leading environmental protection agency in the Lake Simcoe watershed. For over 60 years, we've been collaborating with community, government and other partners to protect and restore the environmental health and quality of Lake Simcoe and its watershed.

LSRCA.on.ca

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f lakesimcoeconservation

🐦 @LSRCA

📷 LSRCA

▶ TheLSRCA



Lake Simcoe
Conservation
Foundation

Lake Simcoe Conservation Foundation (LSCF) is the leading environmental charity in our watershed, raising funds from private individuals and organizations for the critical environmental programs and projects of Lake Simcoe Region Conservation Authority. Contact them directly for information about how you can support their important fundraising activities.

lakesimcoefoundation.ca

✉ foundation@LSRCA.on.ca

☎ 905-895-1281 ☎ 1-800-465-0437

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If you require this document in an alternate format, please contact us at 905-895-1281.



Designation achieved as a result of our leadership in providing commuter options for our employees

