

Adapting to the Climate of Change

2013
Annual Report



Lake Simcoe Region
conservation authority

Message from the Chair and CAO

The old adage, “nothing is constant except change” is truer today than ever before. In the business of conservation, we’ve grown accustomed to the reality of a constantly changing landscape and the fact that natural systems don’t follow political or human-created boundaries.

On a continuous basis, we navigate two separate but overlapping realities - the reality inherent in complex natural systems and the reality of socially constructed systems. Our path is guided by our science and research. They provide the background necessary to inform the decisions we make and play a critical role in how we respond and adapt to a changing environment.

At LSRCA, our science and research not only helps us respond and adapt to changing circumstances, but tells us where we need to take action and drive change. Our RainScaping program is an excellent example of how we’re taking action in a new direction. RainScaping hopes to transform the way we plan and develop by designing our neighbourhoods in harmony with the natural environment. You’ll be hearing more about this program in 2014.

This past year marked several notable accomplishments; our landmark LEAP program underwent a transformation and expansion, embracing a more urban focus; we landed a significant amount of new federal funding to help implement critical projects over the course of the next three years; our re-focused education program is continuing to grow and show signs of sustainability; our staff are being engaged in a progressive movement to create an exceptional culture; and internationally, we continue to be held in high esteem, as leaders in integrated watershed management. 2013 has been another exceptional year!

Of course, none of our programs would be the success they are without our partners. And while we value all our partnerships, our greatest partnership we have is with the watershed ecosystem itself. This is encapsulated in our vision of a “Watershed for Life”.

Throughout this report, you will read and see how we are building partnerships and collaborating for results. The health of this watershed, and ultimately all its residents, depends on it.



Debbie Bath
Chair



D. Gayle Wood
Chief Administrative
Officer

Quick Fact

315 - The number of sites visited in York Region as part of our streambank erosion protection efforts



Quick Fact

2,114 - The number of hectares of land we own or manage (roughly the size of the Community of Keswick)

Our Pillars

science & research

protection & restoration

education & engagement

leadership & support

2013 Highlights

Delivering Education That Makes An Impact

Our environmental education program is well established and flexible. In April, we responded to a request from two Barrie Catholic high schools to design and deliver two days of environmental education programming to their Science students.

With only weeks to prepare, staff from across our organization came together to deliver a unique program that provided experiences the students will carry with them forever.

Students gained an understanding of the importance of insects as indicators of environmental health

Changing The Way We Develop

RainScaping is a market transformation program aimed at changing the way water is managed in new developments. Launched in 2013, the goal of the RainScaping program is to reduce stormwater run-off, a major source of pollution in Lake Simcoe. RainScaping, a form of low impact development, encourages on-site water control that mimics the natural water cycle.

RainScaping benefits include:

1. Improved water quality by reducing the amount of run-off entering our waterways
2. Improved water quantity control, reducing flood risks
3. Decreased costs compared to traditional stormwater management
4. Increased resilience to climate change by improving groundwater recharge conditions
5. Improved water-use conservation measures
6. Reduced impact to drinking water

Currently, our efforts are focused on introducing the practice to developers and municipalities and lobbying legislators to require the adoption of low impact design principles.

RainScaping



Photo Credit:
Fred Rozumalski,
Barr Engineering

We need to change the way we're developing communities because right now they're not sustainable.

*Mike Walters, GM,
Watershed
Management*



Engaging
in outdoor
activities can
be both fun and
educational

Quick Fact

4,000 - The number of students
we engaged in environmental
education programming

Advancing Understanding, Leading To Action

■ Much of our research and science takes place outside of the general public's eye, yet this critical work serves to increase our understanding of the complex ecology of the Lake and watershed and drives the decision making for our protection and restoration efforts.

■ Our in-house limnologist, Dr. Brian Ginn, contributed to two academic papers in the journal *Inland Waters* in 2013. One studied modelling of phosphorus and iron release rates from sediment cores in three lakes, including Lake Simcoe. The other examined how multiple stressors have impacted the Lake Simcoe ecosystem.

Dr. Ginn also received accreditation as a Certified Lake Manager by the North American Lake Management Society. He's now one of only five in Canada to hold the title, which recognizes exceptional training and experience in lake management.

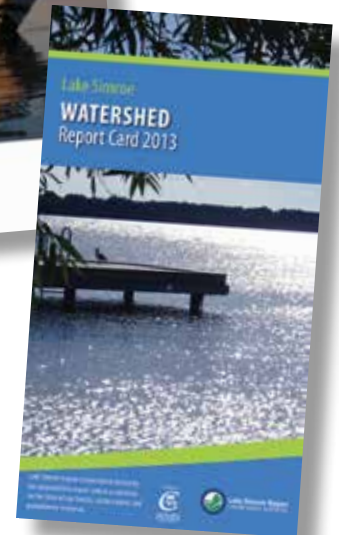
■ In October, we partnered with the Ministries of the Environment and Natural Resources to host the Second Biennial Lake Simcoe Science Forum – a requirement under the Lake Simcoe Protection Plan. The two-day event is an important information exchange, giving our science, research and

stewardship teams the opportunity to share their work and hear from other researchers.

■ We also launched our 2013 Environmental Monitoring Report. While our 2013 Watershed Report Card, published earlier this year, offers a condensed understanding of the state of Lake Simcoe, the Monitoring Report provides greater detail about what we monitor and the trends we're seeing.

■ In partnership with the Ministry of the Environment, we released the latest report on Phosphorus Loads. The report points to winter rain events as a factor behind higher than average phosphorus loads to Lake Simcoe in 2007 and 2008. With climate change models predicting a greater frequency in winter rain events, adapting to climate change is an important component in addressing phosphorus loads into the future.

■ 2013 marked a turning point for our Source Water Protection program. With draft policies submitted to the Ministry of the Environment in October 2012, in collaboration with our partners, the Nottawasaga Valley Conservation Authority and the Severn Sound Environmental Association, our efforts turned to preparing municipalities for implementation.



**Dave Lembcke,
Manager,
Environmental
Science and
Monitoring,
presenting at the
Science Forum**



Quick Fact

RainScaping - Our market transformation program designed to build more sustainable communities



Taking Action & Generating Interest

■ Through provincial Showcasing Water Innovation funding, LSRCA led two stormwater management retrofits. One was in the Colony Trail subdivision in the Town of East Gwillimbury and the other was Lincoln Pond in the Township of Uxbridge.

The project was a partnership with East Gwillimbury, Uxbridge, York Region and the Ministry of the Environment. Built using technologies that are now out of date, the stormwater ponds were contributing to poor water quality in the watershed. The retrofits will help to reduce phosphorus loading to the Lake, and extensive monitoring by LSRCA staff of the water entering and leaving the ponds will contribute to a greater understanding of how the approaches used may contribute to improving stormwater management within and beyond the Lake Simcoe watershed.

■ While many of our Landowner Environmental Assistance Program (LEAP) projects have traditionally supported rural property owners, 2013 marked an expansion into the urban arena, supporting our RainScaping initiative, with a focus on



Landowner Environmental Assistance Program

addressing stormwater management in existing developments.

In 2013, working in partnership with our watershed municipalities, private landowners, the agriculture and market garden communities, residential groups, environmental stewardship associations, the Lake Simcoe Conservation Foundation, the Ministry of the Environment's Showcasing Water Innovation program and the Lake Simcoe South-eastern Georgian Bay Clean-Up fund, LEAP supported 132 projects at a total project cost of \$1.75 million.

■ In 2013, an additional 14 hectares 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 flood plain and contains approximately 900 metres of



the East Holland River, including remnants of the historic Newmarket Canal. The area also contains threatened and endangered species including Bobolink and Eastern Meadow Lark.

■ Building on the success of the East Holland River project, our stewardship efforts have turned to the Barrie and Innisfil area, focusing on the Lover's, Hewitt's, and Barrie Creeks subwatersheds. In partnership with the Lake Simcoe Conservation Foundation, the City of Barrie, the Town of Innisfil and other community organizations, the project area was selected after a thorough review of several reports and subwatershed plans.

■ We continue to enhance and upgrade our facilities at Scanlon Creek Conservation Area.

- The Lake Simcoe Conservation Foundation received \$110,000 from the Department of Fisheries and Ocean's Recreational Fisheries Conservation Partnerships Program to help fund the re-establishment of a natural creek through the area where the reservoir once existed. An additional \$31,200 was received from the Lake Simcoe South-eastern Georgian Bay Clean-Up fund for detailed design and agency approval.

Quick Fact

25 - The estimated kgs of phosphorus reduction per year as a result of the stormwater retrofit in Holland Landing

- Through Trillium funding, the trail network was upgraded substantially with the addition of three kilometres of new trails through pine plantation and the Scanlon Creek valley, and an extension that features a bridge crossing and explores mature hardwood forests.

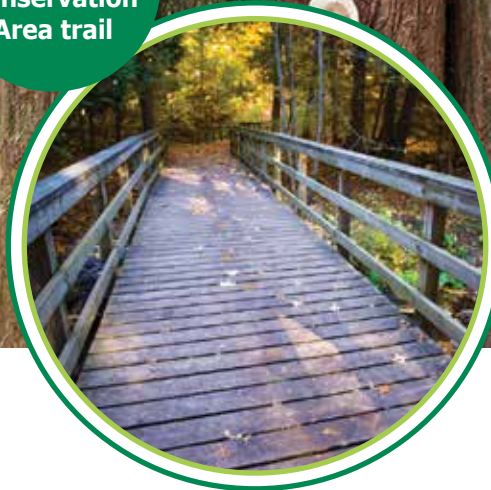
- Friends of Scanlon Creek continued their efforts to enhance the area, improving trail accessibility and signage and constructing and installing additional features at the Discovery Play Garden.

■ Working with the Durham Mountain Bike Association and other volunteers, we built two new sustainable single-track trails in Durham Regional Forest. A professional trail building contractor was retained to develop a new multi-use trail connection, replacing 420 metres of heavily eroded trail and connecting the Oak Ridges Trail with neighbouring properties.

We also renewed our partnership agreement with Durham Region to continue managing the forest for another 10 years and completed the Trails Management Plan, which will guide future trail maintenance and development.



Scanlon
Creek
Conservation
Area trail



Enjoying the
new log play
fort at the
Discovery Play
Garden



LSRCA staff
work with Mexico
Twinning team
partners restoring
eroded streambanks
using traditional
bioengineering
techniques



The International RiverFoundation's twinning program pairs experts with those who will benefit from knowledge sharing and peer-to-peer learning

Sharing & Learning

Twinning Initiative

Now into the third phase of our Twinning Mission with partners JIRA, the University of Guadalajara and the Ayuquila-Armeria Watershed Commission in Mexico, we led two visits to begin hands-on work.

After an identification visit in April, LSRCA staff returned in November to work with our partners, university students and local community representatives to implement remediation work. This included the restoration of 65 metres of riverbank and the planting of native trees in a local park with the help of school children and members of the local community. LSRCA staff also led the installation of five river flow monitoring stations, providing the instruction and expertise that will allow our partners to expand the network further.

Twinning overcomes geographic boundaries to guide others towards independence in water management.
- International RiverFoundation

Quick Fact

150 - The number of trees planted during our November Twinning visit to Mexico

Quick Fact

5 - The number of people in Canada with the designation "Certified Lake Manager", one of whom is our resident limnologist, Dr. Brian Ginn

As stunning as this photo may be, watershed issues in Mexico are serious, and not dissimilar from our own



Erosion is a serious problem in Mexico

We also provided a data management workshop to familiarize them with the tools and methodology they'll need to use to collect and analyse the data accurately.

Of course all this work requires long range planning and our staff continue to work with our Twinning partners on the development of their own watershed management plan.

For more information on the LSRCA-Mexico Twinning, visit www.LSRCA.on.ca/twinning.



LSRCA staff and Mexican partners working on the installation of a flow monitoring station

Celebrating Awareness & Fostering Care



Getting students outside makes for a unique and lasting learning experience

Quick Fact

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





■ Annually, at our Conservation Awards ceremony, we celebrate the dedication of groups and individuals who contribute to the health of our watershed. A new award category was introduced this year – “Pioneering Green Communities” – recognizing the critical connection between our natural and built environments.

■ Enhancing public understanding of our science and research is an important component of our work. Our Watershed Report Cards provide a mechanism to report on the state of our watershed in a user-friendly, plain language format. In 2013, we moved to a standardized reporting format. This ensures our results can be easily compared with other CAs across Ontario, giving residents an understanding of the overall health of our watershed. This also allows researchers to compare results through the identification of local and regional differences.

■ We published three editions of our newsletter, “Lake Simcoe Science” (A Fish Tale, A Tale of Two Rivers and A Local Perspective on Climate Change). The newsletters were also published in Lake Simcoe Living Magazine.

■ We launched a new watershed map, giving residents an easy-to-understand “picture” of our watershed, along with details of our conservation areas and the amenities available.

■ We actively encouraged 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.

■ As participants in the SPLASH Floating Water Festival in Georgina, we sponsored and provided watershed and low impact development knowledge and expertise to a new initiative known as WaterDragons. This unique student engagement initiative was developed in partnership with the Ladies of the Lake. Students participated in a week-long program focused on low impact development principles and urban design. Taking their newfound knowledge, students applied this learning and designed new sustainable community concepts.

■ Our outdoor and environmental education program continues to thrive, with more than 3,300 students participating in our programming at the Scanlon Creek Nature Centre. Our most popular programs included our very own eco-version of “Amazing Race”, “Aquatic Adventures”, “Web of Life”, “Lost”, and “Orienteering.”

■ Our week-long Conservation Kids Camp, offered at Sheppard’s Bush in Aurora, hosted 205 children through the summer season.

Client surveys tell us that students and parents alike, rate the program very highly.

■ Our classroom outreach program reached over 1,300 students across the watershed, from kindergarten to grade 12. Additionally, we reached 4,500 grade 4 students through the 15th Annual York Children’s Water Festival, where our learning station focused on watersheds and water movement.

■ During the summer months, we attended 13 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 critical outreach opportunities.



Living Green Barrie, one of this year’s recipients of our new “Pioneering Green Communities” Conservation Award

Quick Fact



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

Low impact
development
collaboration
session

Leading Change To Inspire Action

■ Carrying out our responsibility to protect people and property from flooding, in partnership with our municipalities, we review and issue permits to property owners for work in regulated lands that are considered hazardous, such as floodplain and wetlands.

To support a more streamlined process and deliver better customer service to landowners seeking permits or approvals, we provide our services directly from a number of municipal offices. In 2013 we added a service agreement with Innisfil, in addition to our existing agreements with Barrie, Oro-Medonte, Ramara and Uxbridge.

■ Subwatershed planning plays a significant role in the work we do.

As part of implementing subwatershed plans we undertook a variety of learning partnerships.

In partnership with the University of Guelph, the Ministry of the Environment and the Town of Aurora, we offered a "Smart About Salt" training and certification program. This program, developed by the Region of Waterloo, is a tool to recognize and reward property owners and snow removal contractors who balance winter safety and environmental

protection. LSRCA has taken the first step to achieve certification so we can lead by example and ensure that our parking lot is managed using the best available practices.

■ We partnered with TRCA to offer a "Certified Inspector of Sediment and Erosion Control" training course. The course trains municipal and private sector professionals on legislation, regulations and best practices related to sediment and erosion control on building sites. Interest was so significant that another session is planned for February, 2014.

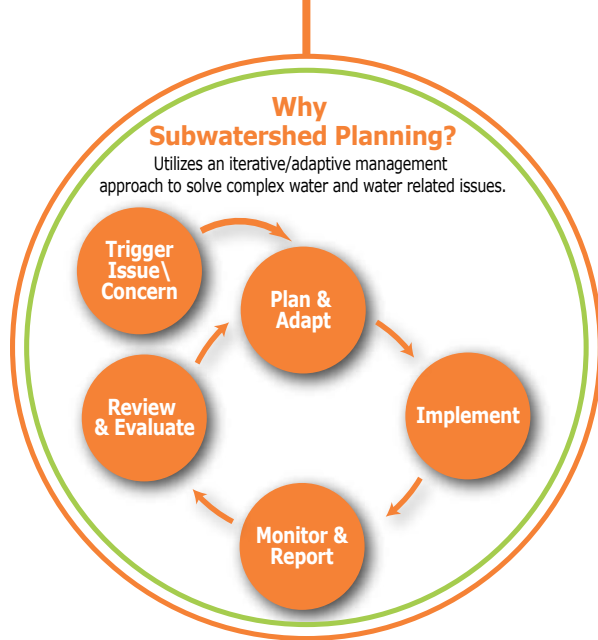
■ Continuing with the theme of training, we offered a half-day course called "Ditch Day" for municipal road managers. This training provided guidance related to the protection of fish habitat and other sensitive environmental features, while maintaining roadside ditches. In all, 37 staff from 13 municipalities across our watershed attended.



■ In collaboration with Saugeen Conservation and the Dorset Environmental Science Centre, our resident "bug expert", Ray Bolton, co-taught a 3-day course at Nipissing University on the Identification of Ontario's Benthic-invertebrate Families. The course prepares students for the certification exam administered by the Society for Freshwater Science's Taxonomic Certification Program.

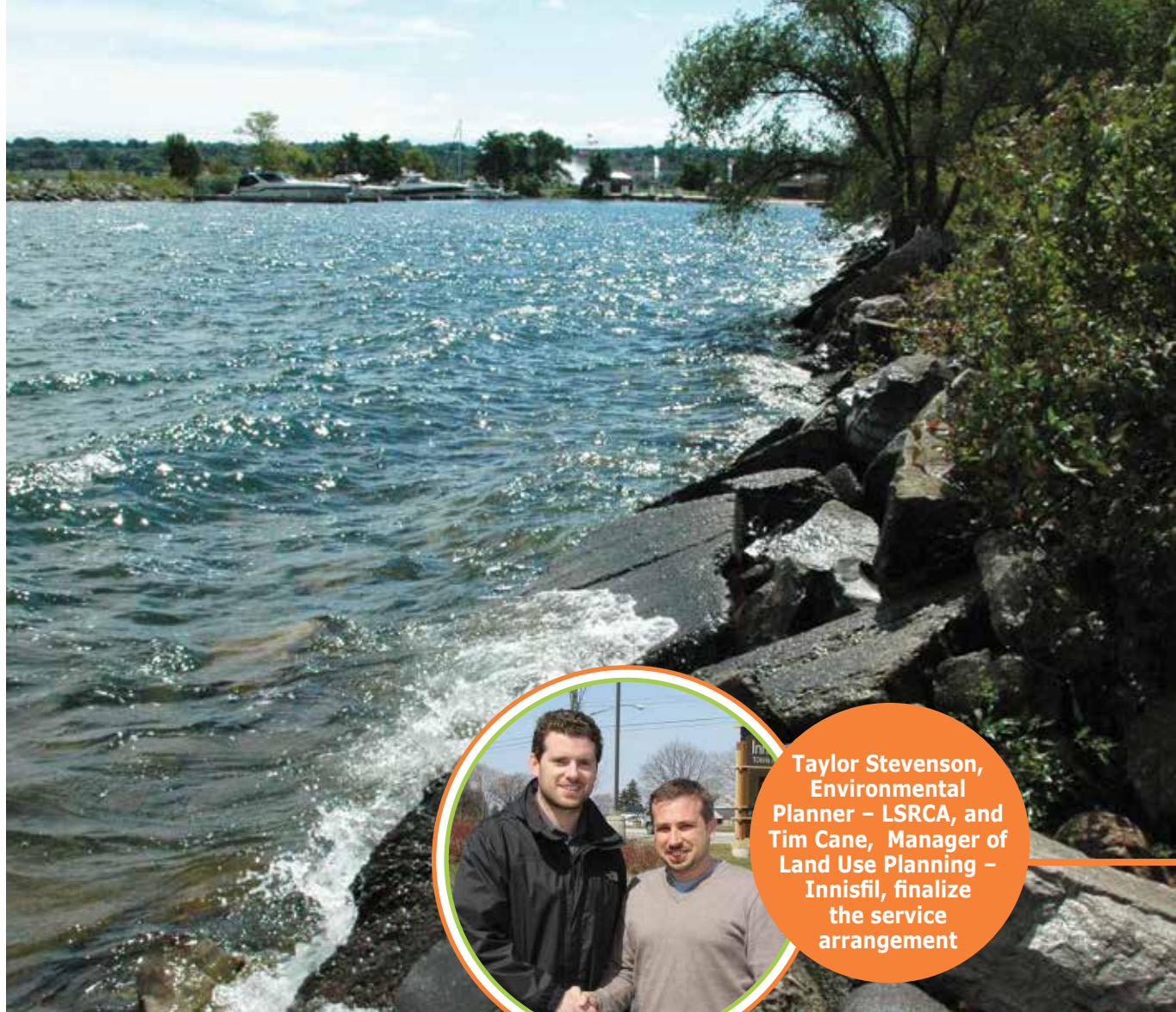
■ Leading a positive change in office culture, we began rolling out our "Corporate Culture" initiative throughout 2013. This initiative is designed to build a highly engaged and informed staff complement. Our initial staff survey identified a number of strengths that we will continue to build on to ensure the highest level of service and satisfaction:

- Our staff have a strong commitment to our mission and goals
- Our staff enjoy their individual work as well as their work with colleagues and supervisors
- Our staff place a high value on customer service



■ CAO, Gayle Wood joined professional planning associations from around the world for this year's annual international "World Town Planning Day" online conference. The event took place completely online, as a part of the association's effort to reduce the carbon footprint caused by presenter/participant travel. Gayle participated in a panel along with colleagues from Israel, Australia, Kenya and Poland to discuss urban waterfronts.

■ As part of its management of the expansive Trent-Severn waterway, Parks Canada manages lake levels, including those in Lake Simcoe. In October, LSRCA staff worked with Simcoe North Member of Parliament, Bruce Stanton, to raise awareness around the issue of lake levels management by participating in a standing-room-only public open house that brought various stakeholders together. The open house strengthened understanding of the complexity around the lake-level issue. LSRCA also created and widely distributed a fact sheet on the topic.



Taylor Stevenson,
Environmental
Planner – LSRCA, and
Tim Cane, Manager of
Land Use Planning –
Innisfil, finalize
the service
arrangement

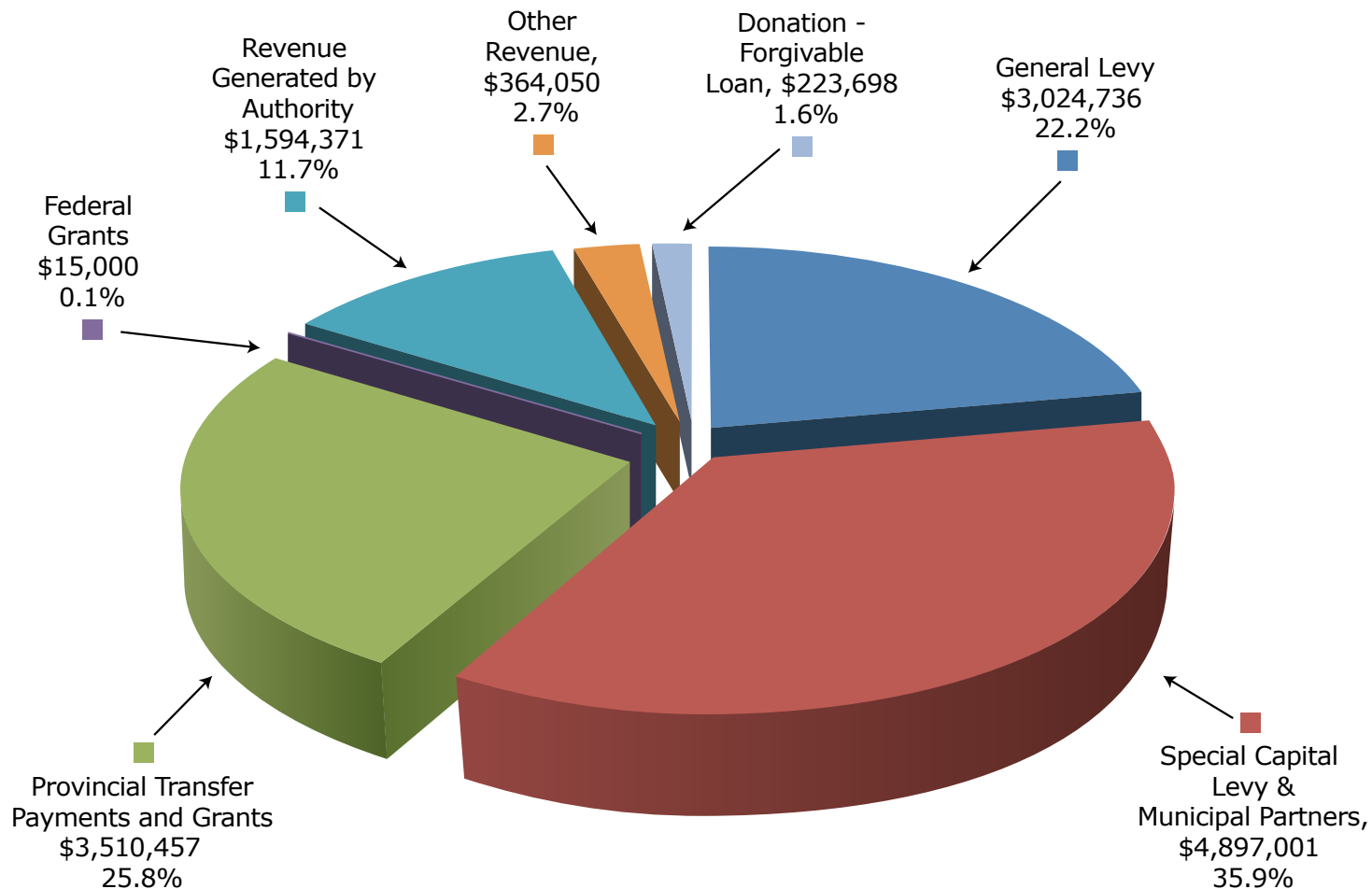
■ Shoreline management is another complex issue. While LSRCA plays an important role in regulating shoreline activities, we share that responsibility with a number of other partners. In spring 2013, we took part in a half-day meeting with other regulatory agencies, hosted by the Town of Innisfil, to clarify roles and responsibilities and improve understanding.

Quick Fact

58,000 - The number of "pieces" in our newly consolidated and updated GIS land cover mapping

Financial Summary

Revenue \$13,629,313

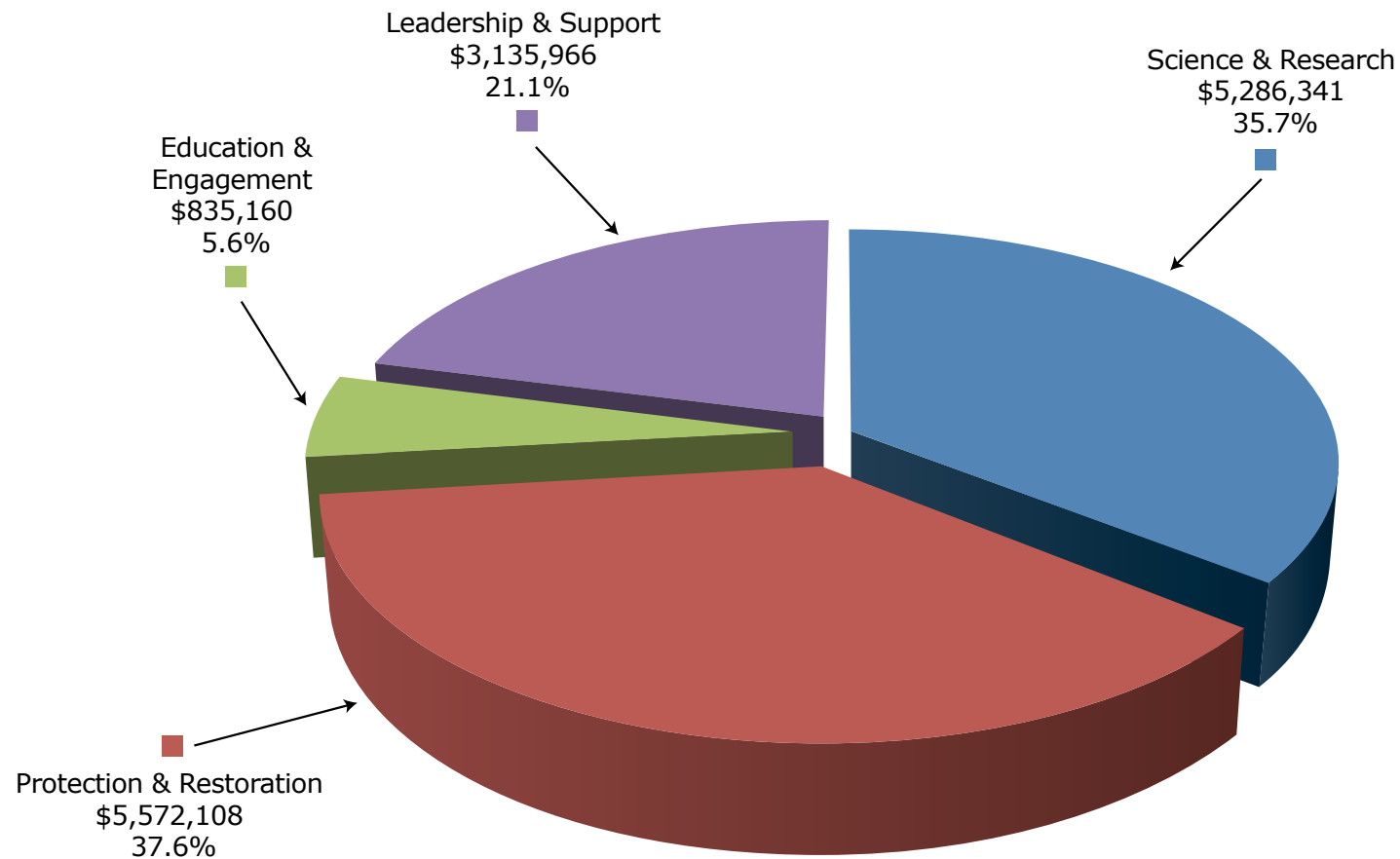


Lake Simcoe Conservation Foundation donation funding included in Revenue Generated by Authority = \$230,000.

This financial information is condensed from the 2013 Board of Directors' approved budget summary. Copies of the complete auditor's report for the year ended December 31, 2013 are anticipated to be available in April 2014 at LSRCA's Head Office at 120 Bayview Parkway, Newmarket.

**Expenditures Net of Internal Fee for Service,
Asset Purchases and Amortization: \$13,849,680**

(\$14,829,575 - \$957,458 + \$300,000 - \$322,437)



Principal on forgivable loan	\$187,584
Recapture asset purchases	\$322,437
Net transfers from reserves	\$(430,388)
Less Amortization	\$(300,000)
Projected Deficit:	<u>(\$220,367)</u>



2013 Board of Directors

Durham Region (Brock)

Regional Councillor/Deputy Mayor Debbie Bath
(Vice Chair, January – October 2013)
(Chair, November 2013 – January 2014)

Durham Region (Scugog)

Regional Councillor/Deputy Mayor Bobbie Drew
(Vice-Chair, November 2013 – January 2014)

York Region (at Large)

Mayor Robert Grossi
(Chair, January – October 2013)
(Leave of Absence, November 2013 – January 2014)

York Region (Aurora)

Mayor Geoffrey Dawe

York Region (East Gwillimbury)

Mayor Virginia Hackson

York Region (Georgina)

Councillor Phil Craig

York Region (King)

Councillor Avia Eek

York Region (Newmarket)

Councillor Dave Kerwin

York Region (Whitchurch-Stouffville)

Councillor Ken Ferdinands

Durham Region (Uxbridge)

Regional Councillor Jack Ballinger

City of Barrie

Councillor Barry Ward

City of Barrie

(Citizen Representative)
Mr. Eric Bull

Town of Bradford

West Gwillimbury

Councillor Del Crake

Town of Innisfil

Councillor Maria Baier

City of Kawartha Lakes

Councillor Stephen Strangway

Town of New Tecumseth

Councillor Bruce Haire

Township of Oro-Medonte

Councillor Dwight Evans

Township of Ramara

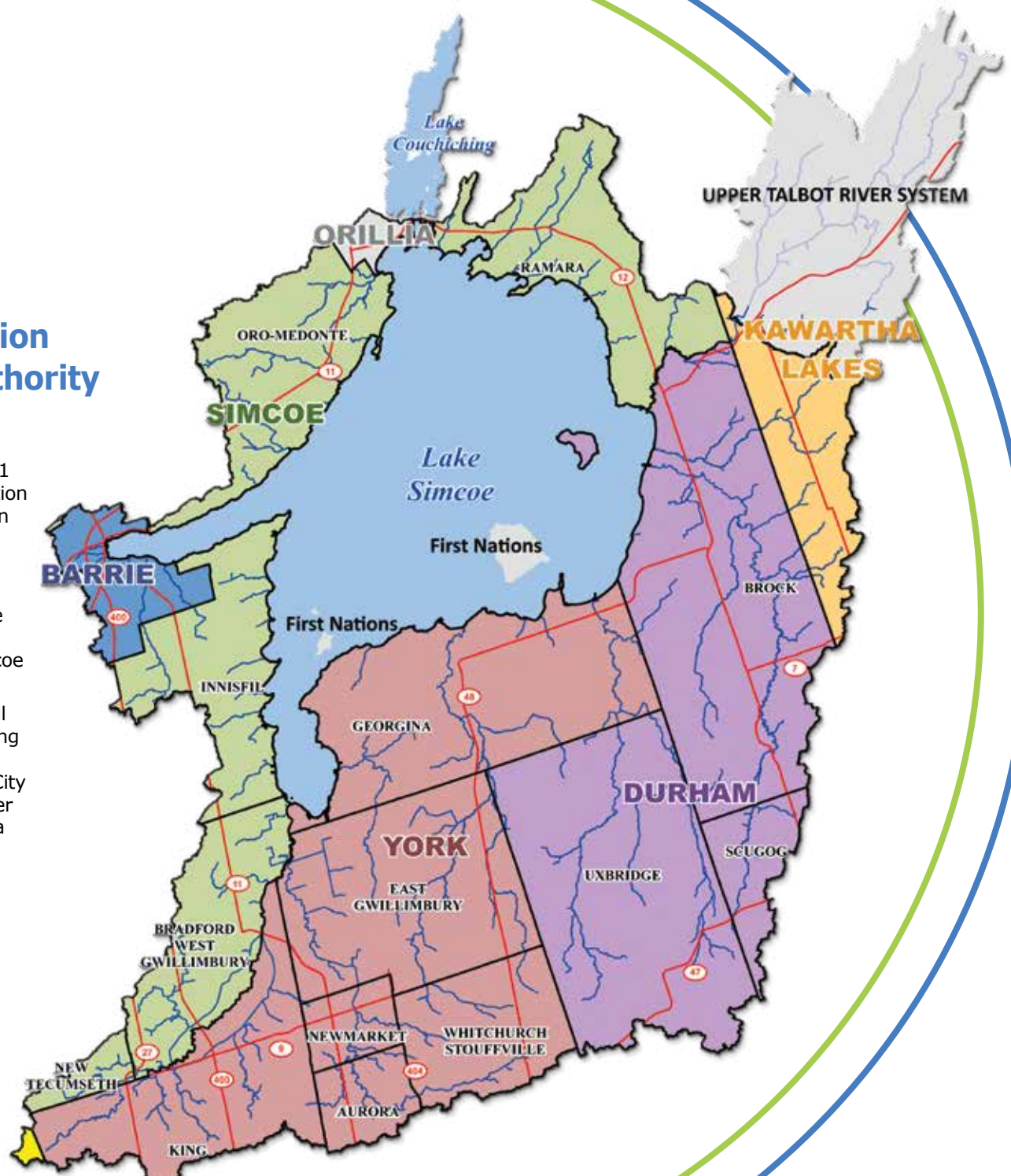
Councillor John O'Donnell

Lake Simcoe Region Conservation Authority

LSRCA is a local autonomous corporate body, formed in 1951 under the Provincial Conservation Authorities Act, governed by an eighteen-member board of directors appointed by nine member municipalities.

Twenty upper, lower and single tier municipalities lie in whole or in part within the Lake Simcoe watershed.

LSRCA's jurisdiction includes all river and creek systems draining into Lake Simcoe with the exception of those within the City of Orillia, the Upper Talbot River System in the City of Kawartha Lakes and First Nations land.





**Lake Simcoe
Conservation
Foundation**

The 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.

In 2013, LSCF achieved the distinguished Imagine Canada accreditation after demonstrating the highest standards for public confidence in the nonprofit sector.



Website: www.lakesimcoefoundation.ca

Email: foundation@LSRCA.on.ca

Telephone: 905-895-1281

Toll Free: 1-800-465-0437

120 Bayview Parkway

Newmarket, Ontario L3Y 4X1



Lake Simcoe Region
conservation authority

For over 60 years, LSRCA has been working with municipal, community and other government partners, providing leadership in the protection and restoration of the environmental health and quality of Lake Simcoe and its watershed.

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



FSC LOGO

