

Healthy Watershed, Healthy Communities



2015

Annual Report

Nottawasaga Valley Conservation Authority





2015 Board of Directors

Bob Meadows

Township of Adjala-Tosorontio

Gail Little

Township of Amaranth

Arif Khan • Sergio Morales

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Gail Ardiel, Vice Chair

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Connie Leishman • Chris Vanderkruys

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Town of Collingwood

Michael Smith • Keith White

Township of Essa

Terry Mokriy

Municipality of Grey Highlands

Doug Lougheed, Chair • Rob Nicol

Town of Innisfil

Darren White

Township of Melancthon

Fred Nix

Town of Mono

Earl Hawkins

Township of Mulmur

Donna Jebb • Rick Milne

Town of New Tecumseth

Barbara Coutanche • Phil Hall

Township of Oro-Medonte

Walter Benotto

Town of Shelburne

Bill French • Perry Ritchie

Township of Springwater

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Town of Wasaga Beach



Nottawasaga Valley Conservation Authority

The Nottawasaga Valley Conservation Authority (NVCA) is your public agency dedicated to creating a healthy environment and communities through innovative watershed management.

We are committed to protecting watershed communities from natural hazards like flooding and erosion. We work to preserve and enhance watershed land and water resources. We connect our community with their watershed through nature-based educational and recreational opportunities.

As one of the 36 conservation authorities legislated by the Ontario *Conservation Authorities Act* of 1946, we are governed by a board of directors appointed by our 18 member municipalities. Critical to our success is our strong partnerships with our member municipalities, government agencies, community partners and local landowners.

NVCA's jurisdiction extends over the 3,700 km² of the Nottawasaga Valley watershed, excluding the lands within CFB Borden. The Nottawasaga River and its tributaries run from highlands on the Oak Ridges Moraine, Niagara Escarpment and Oro Moraine through the internationally significant Minesing Wetlands before flowing into Georgian Bay.



Our Vision

Innovative watershed management supporting a healthy environment, communities and lifestyles.

Our Mission

Working together to lead, promote, support and inspire innovative watershed management

The Pine River as it travels through Adjala-Tosorontio

Delivering on Innovative Watershed Management

The NVCA’s board of directors set a robust and forward-looking course for the authority through the development of the 2014-2018 strategic plan. The plan focused on three key goals: to protect, enhance and restore the watershed; to inspire others through leadership and innovation; and to connect people to the watershed through recreation and education.

Looking through the accomplishments highlighted in this report, you will see that through good science and good governance, NVCA is delivering on these goals. Through an updated business plan, action on governance recommendations from the 2014 service delivery review, and a continued emphasis on customer service, the board and staff are achieving the authority’s mission to lead, promote, support and inspire innovative watershed management.

This success is rooted in the partnerships that form the basis for NVCA’s programs and services. It is thanks to the contributions of our member municipalities, landowners, volunteers, businesses, program funders and community groups that we are able to continue our work building a healthy, vibrant watershed.

As we continue to implement our strategic plan in 2016, we look forward to receiving the recommendations of the provincial *Conservation Authorities Act Review* and to take bold steps to respond to the growing population, changing demographics and unpredictable climate change.

Now more than ever, we must work together to protect and enhance our shared watershed to support a healthy environment and healthy communities.



Doug Lougheed
2015 Chair of the Board



D. Gayle Wood
CAO



Planning Services BY THE NUMBERS

490

applications reviewed and approved under *Conservation Authorities Act*

39

non-compliance issues investigated under the *Conservation Authorities Act*

106

zoning amendments, Official Plans and Official Plan amendments reviewed

15

new subdivision plans reviewed

285

consents, variances & Niagara Escarpment Commission reviewed

134

responses to solicitor inquiries

35

site plan reviewed

7

environmental assessments reviewed

98

preconsultation and other planning services offered

Planning Services

NVCA's Planning Services protects people and property from risks posed by flooding and erosion and promotes sustainable development through regulating development in wetlands and near waterways and providing planning review and advice.

- Worked with stakeholders from the development, aggregate and agriculture sectors, as well as past clients, to review and update the planning and permitting fees charged by NVCA. The suggested fee changes went to the NVCA board of directors for approval in early 2016.
- Developed a pilot project with the Township of Mulmur to streamline low-risk permit applications. Under the low-risk screening protocol, township staff review development activities like pools and decks in NVCA regulated areas more than 30 m from a wetlands. The screened applications are expedited through the NVCA approval process at no cost to Mulmur or the customer. The new protocol simplifies the approval process for customers, increases efficiency, and allows NVCA staff to focus on more significant, higher risk, development applications.
- Processed 1,209 applications and inquiries under various provincial acts: *Conservation Authority Act, Planning Act, Niagara Escarpment Planning and Development Act, Aggregate Resource Act, Green Energy Act, Drainage Act, and Environmental Assessment Act.*
- Investigated 39 non-compliance issues under the *Conservation Authorities Act.*



Lands, Education & Stewardship Services

NVCA's Lands, Education and Stewardship Services works to protect, enhance and restore natural areas to protect watershed health and safeguard sensitive natural areas. Through outdoor education and public programming, NVCA connects and engages residents with these special places in our watershed.

Conservation Lands Program

- Hosted more than 25,000 visitors at 12 conservation areas across the watershed.
- Sold more than 100 annual parking passes and 116 hunting passes for NVCA conservation areas.
- Hosted 26 wedding celebrations at the Tiffin Centre for Conservation.
- Hosted more than 1,700 guests at 45 outdoor events at the Tiffin Centre for Conservation (including Scouts, Girl Guides, cadets and live-action role playing groups).
- Continued partnered efforts to eradicate invasive Phragmites in the Minesing Wetlands.
- Completed clean-up and restoration of a large section of the Tiffin Centre after a 2014 tornado destroyed 12 acres of forest and 13 outbuildings.
- Made several improvements at the Tiffin Centre, including constructing a new pavilion in the Rotary Community Campground and renovating the washrooms at the Jose Environmental Learning Centre.
- Introduced a new system that allows visitors to pay their parking fees using their smart phone. Parking fees collected at conservation areas increased by 47%. These fees, collected on an honour system, go back into maintaining and enhancing our conservation areas – a win-win for NVCA and our many regular visitors.
- Partnered with the Bruce Trail Conservancy to construct a boardwalk at the Nottawasaga Bluffs.
- Partnered with Bruce Grey Simcoe Tourism to install canoe route kiosks at six locations along the Nottawasaga River and Willow Creek.



Pine River Restoration (panorama by R. Klein)

Community River Restoration

- Completed six large-scale habitat restoration projects in New Tecumseth (2), Wasaga Beach, Essa, Collingwood and Clearview. Municipalities contributed \$27,000 towards these works, with NVCA applying \$272,000 in grant funding.
- With the Township of Adjala-Tosorontio, started the Pine River Fisheries Enhancement Program (funded by Environment Canada’s Lake Simcoe/Southeastern Georgian Bay Clean-Up Fund).
- With South Simcoe Streams Network (SSSN), Nottawasaga Futures and 348 volunteers, planted 2,912 trees along 1.3 km of stream in Adjala-Tosorontio, Essa, Innisfil and New Tecumseth.
- With the Nottawasaga Watershed Improvement Program (NWIP), Essa Township and the Essa Healthy Communities Committee, created a new 50 m channel on the Pine River. The channel is surrounded by healthy forest and bypasses an 80 m stretch of bank that was eroding into a local soccer field.
- With SSSN, Nottawasaga Futures and the Town of New Tecumseth, stabilized eroding banks along 670 m of Beeton Creek and created 3,450 m² of new floodplain habitat.
- With NWIP and Town of Wasaga Beach, constructed a 35 m long shoreline wall on the Nottawasaga River. The wall was constructed using boulders and live vegetation. It is intended to serve as a habitat-friendly retaining wall demonstration site that showcases an alternative to the use of metal sheet pile or vertical cedar post walls.
- With the Township of Adjala-Tosorontio and SSSN, opened a 50 m long log-jam on the Boyne River that was affecting rainbow trout and chinook salmon spawning migrations.
- With NWIP and the Georgian Triangle Anglers’ Association, restored 120 m of urban trout habitat in Collingwood along the Black Ash Creek.

- With the township, NWIP, and local schools, began tree planting and stream habitat restoration activities along Lamont Creek at Clearview Township’s EcoPark.

Healthy Waters Program

- Leveraged \$164,000 of funding to support projects that improve water quality and restore habitat. Funders include Environment Canada, TD Friends of the Environment, RBC and corporate donations.
- Worked with farmers and rural landowners to reduce 750 kg/year of phosphorus runoff to streams and lakes. This will help prevent up to 375 tonnes of excessive algae growth! For a healthy watershed, phosphorus runoff needs to be cut in half, from 47 to 25 tonnes/year.
- Worked with the Nature Conservancy Canada and TD Friends of the Environment to enhance the Minesing Wetlands, including remeandering the Willow Creek and restoring swamp forest cover with the help of hundreds of volunteers.
- Worked with farmers to protect water and wetlands by installing over 2 km of fence that restricts livestock from sensitive areas.
- Along with NVCA’s forestry program, planted trees along 15 km of stream and rivers. Trees helps cool the water, stabilize banks and reduce pollution runoff entering the river.
- Engaged over 650 volunteers in hands-on habitat restoration projects.
- Completed 14 groundwater protection projects with farmers and residents to reduce the risk of bacteria and nitrate contamination.
- Conducted 97 free site visits with landowners interested in stewardship projects. Answered 449 information requests. Engaged over 1,700 people at 36 fun and informative community events.



A day of outdoor exploration and learning at the Tiffin Centre for Conservation (students from Sister Catherine Donnelly Catholic School, Barrie)

Forestry Program

- Planted 213,750 trees on 30 properties across the watershed. This is the most trees planted by NVCA's forestry program in a single year to date.
- Received financial contributions (outside of levy) from provincial and municipal governments, corporations and private landowners totaling \$386,700.
- Managed 858 acres of forest; worked with landowners to develop 28 Managed Forest Plans.
- Conducted Arbour Day sales in two municipalities, selling 2,000 tree seedlings to support tree-planting programs.

Environmental Education & Public Events

- Provided quality outdoor and environmental education to 11,721 youth in all initiatives combined. This includes welcoming 300 youth over the summer as part of the Camp Tiffin day camp program.
- Expanded education program offerings, developing new programs on nature photography, photo orienteering and "wonderful wetlands," and introducing a program specific for home-schooled students.
- Offered public programming across all seasons:
 - Christmas Bird Count for Kids—40 participants
 - Family Day—470 participants
 - March Break Family Day—170 participants
 - Spring Tonic Maple Syrup Festival (with Rotary Club of Barrie)—3,000 participants
 - Festival at the Fort (with Friends of Fort Willow, Rotary clubs and Springwater Township)—750 participants

Lands & Stewardship BY THE NUMBERS

12,961

acres of conservation lands managed in total

122

stewardship and forestry projects completed

\$774,437

awarded to watershed landowners for stewardship and forestry projects

224,902

trees planted in all programs

858

forest acres managed

19.7

km stream protected or rehabilitated

Environmental Education BY THE NUMBERS

216

schools/groups visits to Tiffin Centre

11,721

youth participated in education programming at Tiffin Centre

4,400+

people reached through NVCA public programming



Engineering & Technical Services

NVCA's Engineering and Technical Services cultivate our scientific knowledge of the watershed to advance effective decision making related to flood and low water conditions, watershed resources, groundwater management and source/drinking water protection.

Source Water Protection

- Supported local efforts that saw the Source Water Protection Plan for the South Georgian Bay - Lake Simcoe Protection Region approved by the Ministry of the Environment and Climate Change (MOECC). The plan came into effect July 1, 2015.
- As Risk Management Official for Essa, Collingwood, Mono, Mulmur, New Tecumseth and Shelburne, began work on municipal risk management plans.
- Participated on the regional working group in support of the source water protection education and outreach strategy.

Groundwater Monitoring

- Monitored groundwater at 36 locations in the watershed for water levels and ambient water quality both as part of the Provincial Groundwater Monitoring Network and other well networks.

- Continued the Drought Management Pilot Project for the Innisfil Creek sub-watershed for the Ministry of Natural Resources and Forestry (MNRF).
- Completed Groundwater Drought Indicator Lag Time and Barometric Evaluation Project for the MNRF.
- Partnered with the Holland Marsh Growers Association to research water quality improvements for on-farm applications.

Water Resources & Flood Warnings

- Inspected and operated flood and erosion control structures, including Utopia, New Lowell and Tottenham dams.
- Updated the hydrometric database to automatically import NVCA meteorological and stream gauge data for flood forecast operations.

- Improved the NVCA stream gauge network, equipping flood monitoring stations with solar panels, batteries and new data loggers.
- Issued 9 flood messages.
- Began work on a Nottawasaga watershed phosphorus management tool, with funding from the Lake Simcoe/ South-eastern Georgian Bay Clean-Up Fund.

Watershed Monitoring

- Monitored water quality throughout the watershed: benthic macroinvertebrates (aquatic “bugs” that are an indicator of stream health) at 67 sites, baseflow at 7 sites and provincial water quality at 18 sites.
- Continued a reference site research project with the MOECC and other conservation authorities to improve watershed reporting and analysis of benthic macroinvertebrates.
- Initiated the West Collingwood Phragmites Community Action Plan in partnership with Georgian Bay Forever, Blue Mountain Watershed Trust Foundation, the Town of Collingwood and local condo associations.
- Supported invasive species monitoring, control and education efforts in other parts of the watershed.
- Partnered with universities to further watershed knowledge: McMaster University study of nutrients in the middle and lower reaches of the Nottawasaga River; University of Waterloo study of phosphorus in the lower Nottawasaga River and Nottawasaga Bay; and Ryerson University study of the fate of road salt in our waterways.
- Produced two science and stewardship case studies on Willow Creek and the Upper Nottawasaga River.
- Conducted annual breeding bird surveys at the Tiffin Conservation Area and in Minesing Wetlands.
- Continued to update watershed wetland mapping.
- Completed Greenbelt/Oak Ridges Moraine environmental health reporting.

Geographic Information Systems (GIS) & Information Technology

- Reassessed the mapped erosion hazard limit to provide a more accurate assessment for application of the regulations. Scheduled to be completed in 2016.
- Developed a module for the MNRF Flood Event Database.
- Developed a web-based risk management database for Source Water Protection Risk Management Officials to log and track the development of risk management plans.
- Developed a web-based GIS application to provide staff better access to NVCA mapping data.

Engineering & Tech Services BY THE NUMBERS

9

flood messages issued

100

stormwater management plans reviewed

18

sites monitored for water quality as part of the Provincial Water Quality Monitoring program

67

sites monitored for benthic macroinvertebrates, a measure of stream health

7

sites monitored for stream baseflow

36

wells monitored for groundwater quality and water level



Measuring river flows along the Nottawasaga River in New Tecumseth

Corporate Services

NVCA's Corporate Services plays a critical supportive role to the board of directors and to staff across the organization, providing finance, human resources, communications and administrative leadership.

Governance

- Acted on recommendations in the 2014 Service Delivery and Operational Review. Of the review's 26 recommendations, 12 have been completed and 14 are underway. These include:
 - Delivering a board member education and training program;
 - Building closer working relationships with all member municipalities through initiatives such as the NVCA's CAO round table;
 - Operationalizing the NVCA strategic plan by developing a new business plan and developing sustainable funding models through initiatives such as the Education Strategic Plan and Municipal Action Plan;
 - Improving internal communications within and between NVCA departments; and
 - Reducing the size the NVCA board of directors.

- Updated the performance management program and completed a market compensation study.
- Hosted a delegation from Henan Province, China, sharing information on NVCA's source water management program.

Corporate Support

- Created emergency response plan and crisis communications plan.
- Enhanced opportunities for client feedback in order to track customer satisfaction and identify areas for improvement.
- Processed eight Freedom of Information requests.
- Maintained and further enhanced NVCA website and social media presence.
- Provided financial, human resources, communications and administrative support to the board of directors and all NVCA departments.

Financial Summary

NVCA Staff

Permanent and contract staff as of December 31, 2015.

Office of the CAO

D. Gayle Wood, Chief Administrative Officer • Laurie Barron, Coordinator, CAO and Corporate Services

Corporate Services

Sheryl Flannagan, Director, Corporate Services • Rebecca Bertin, Bookkeeper • Heather Kepran, Communications Coordinator • Christine Knapp, General Accountant (on leave) • Debbie Swindells, Accounts Receivable/Payroll Specialist • Kimberly Winder, Receptionist/Administrative Assistant

Engineering & Technical Services

Glenn Switzer, Director, Engineering & Technical Services • Peter Alm, Water Resource Engineer • Hendrik Amo, Manager GIS/IT • Robert Bettinelli, Information Management Specialist • David Featherstone, Manager, Watershed Monitoring • Brittany Hope, Watershed Monitoring Technician • Ian Ockenden, Watershed Monitoring Specialist • Stephanie McPhie, Groundwater Technical Assistant • Ryan Post, Lead Hydrogeologist • Tom Reeve, Senior Manager, Engineer Services • Michael Saunders, Agricultural Water Technologist • Sheri Steinginga, Flood Operations Field Specialist • Lyle Wood, GIS Technician

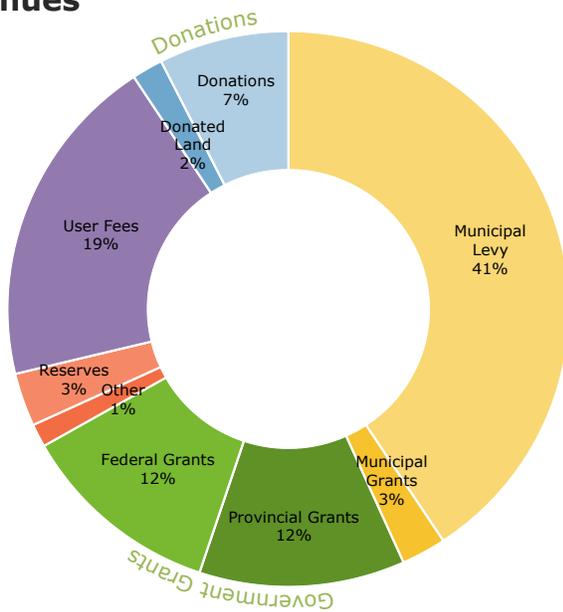
Lands, Education & Stewardship Services

Byron Wesson, Director, Lands, Education & Stewardship Services • Melissa Bramham, Environmental Education Associate • Wil Brunner, Stream Habitat Restoration Biologist • Sarah Campbell, Aquatic Biologist (on leave) • Clint Collis, Lands & Operations Technician • Nathan Cutler, Lands & Operations Technician • Fred Dobbs, Manager, Stewardship Services • Rick Grillmayer, Manager, Forestry • Brittany Hammill, Environmental Education Assistant • Kyra Howes, Manager, Lands & Operations • Alisha Lam, Environmental Education Associate (on leave) • Spencer Macdonald, Lands & Operations Technician • Jessica Nurmsoo, Environmental Education Assistant • Henry Pelley, Maintenance Technician • Linda Raeburn, Manager, Environmental Education • Naomi Saunders, Environmental Education Assistant • Shannon Stephens, Healthy Waters Program Coordinator • Alisha Tobola, Forestry Technician • Grant Wilson, Environmental Education Associate

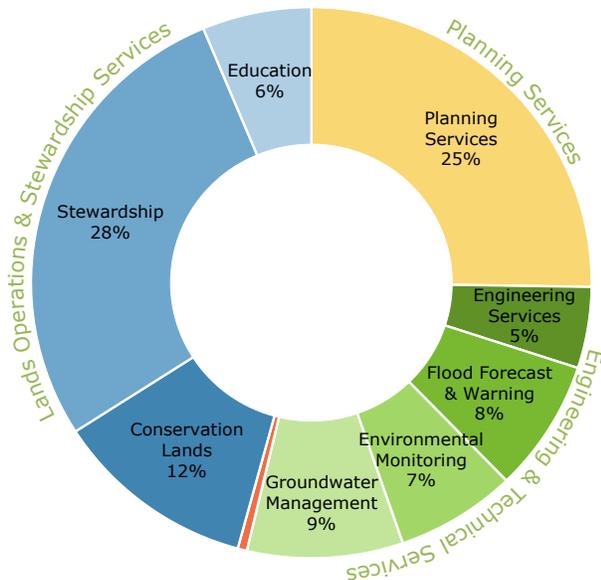
Planning Services

Chris Hibberd, Director, Planning Services • Jeff Andersen, Regulations Technician • Lee Bull, Manager, Planning Services • Logan Juffermans, Planning Assistant • Jennifer Muldoon, Planning Administrative Assistant • Barbara Perreault, Manager, Regulations & Enforcement • Tim Salkeld, Resource Planner

Revenues



Expenses



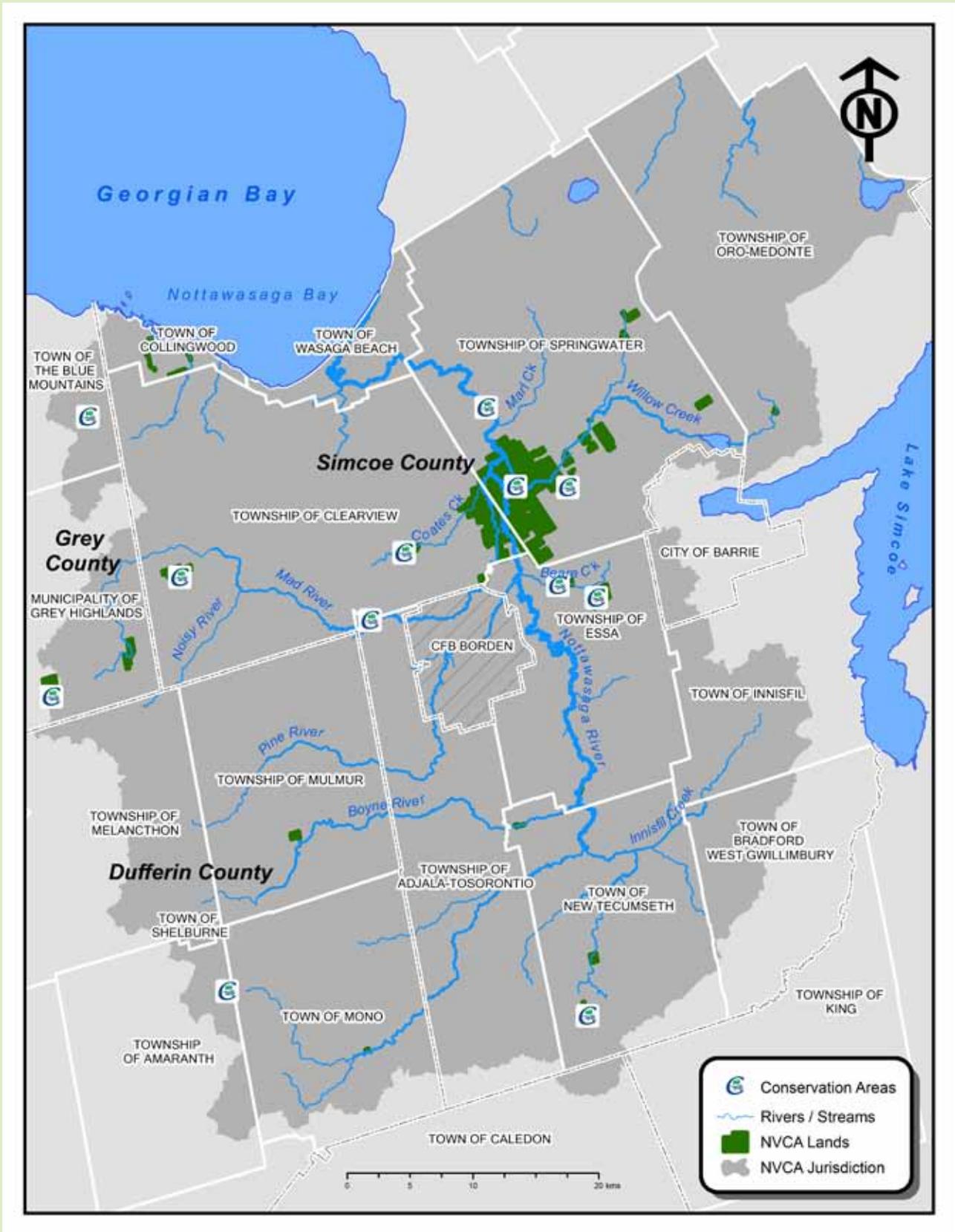
Corporate Services, shown in orange, represented less than 1% of total expenses.

In 2015, NVCA had total budget of \$5,048,757. Revenue came from diverse sources, including member municipalities, provincial and federal governments, local non-governmental partners, and user fees for programs and services.

The 2015 balanced budget as approved required the use of \$321,679 from NVCA's reserves. With solid revenue performance including new funding partnerships and expenditure control, NVCA ended the year requiring the use of just over \$156,500.

Find full financial statements at nvca.on.ca.

The NVCA Board of Directors and staff extend a heartfelt thank-you to all our watershed partners for their volunteer and financial support throughout 2015.



Nottawasaga Valley Conservation Authority

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A member of:

