

Healthy Watershed, Healthy Communities

2014

Annual Report

Nottawasaga Valley Conservation Authority





2014 Board of Directors

Mary Brett,

Township of Adjala-Tosorontio

Percy Way, **Township of Amaranth**

Arif Khan, **City of Barrie**

Gail Ardiel, Vice Chair,

Town of The Blue Mountains

Rob Keffer,

Town of Bradford West Gwillimbury

Brent Preston • Alicia Savage,

Township of Clearview

Mike Edwards • Kevin Lloyd,

Town of Collingwood

Michael Smith • Keith White,

Township of Essa

Paul McQueen,

Municipality of Grey Highlands

Dan Davidson • Doug Loughheed,

Town of Innisfil

Darren White, **Township of Melancthon**

Fred Nix, **Town of Mono**

Earl Hawkins, **Township of Mulmur**

Donna Jebb • Bob Marrs,

Town of New Tecumseth

Mel Coutanche • Ralph Hough,

Township of Oro-Medonte

Walter Benotto, Past-Chair,

Town of Shelburne

Perry Ritchie • Rick Webster,

Township of Springwater

Nina Bifulchi, Chair • George Watson,

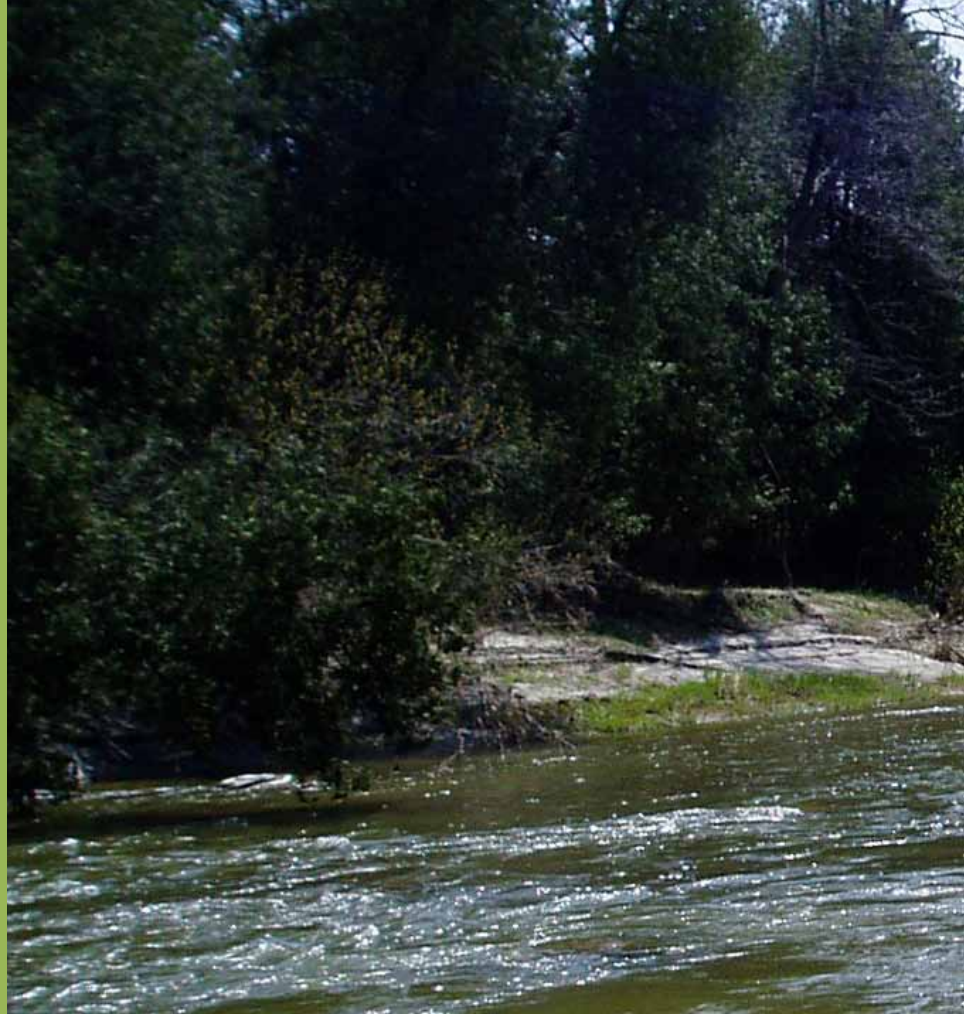
Town of Wasaga Beach

Watershed Counties

Dufferin County

Grey County

Simcoe County



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 27-member board of directors appointed by 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

A Path to a Healthy, Vibrant Watershed

Since its creation on May 5, 1960, the NVCA has worked to “further the conservation, restoration, development and management of natural resources” within its jurisdiction. While NVCA has been largely successful in this endeavour, pressures from growth, climate change and funding, among others, continue to challenge the way in which we deliver services under this mandate.

As we enter our 55th year, we are excited to start taking on these new challenges and the possibilities they bring. Board members, staff and community partners will begin to implement our robust and forward-looking strategic plan, putting into action steps to deliver innovative, science-based watershed management in a professional, adaptive and transparent manner.

Looking through the accomplishments highlighted in this report, you will see that partnership is a key element of the programs that NVCA delivers, and one that will continue as we put our strategic plan into action. 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 move forward, we would like to take a minute to recognize our outgoing board members for their dedication over the past four years. We would also extend a warm farewell to Wayne Wilson, who retired in 2014 after leading the NVCA for more than 20 years. Wayne’s leadership and efforts, along with those of our knowledgeable and committed staff and supporters, have positioned NVCA to move into this next phase as a respected and resilient organization.



Doug Loughheed
2015 Chair of the Board



D. Gayle Wood
CAO

Planning Services BY THE NUMBERS

433

applications reviewed and approved
under *Conservation Authorities Act*

25

violations investigated under the
Conservation Authorities Act

84

zoning amendments, Official Plans and
Official Plan amendments reviewed

2

new subdivision plan reviewed

291

consents, variances & Niagara
Escarpment Commission reviewed

125

responses to solicitor inquiries

35

site plan reviewed

8

environmental assessments reviewed

62

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.

- updated the generic regulations mapping for the watershed. NVCA regulates in wetlands and areas adjacent to waterways where flooding and erosion may put people and property at risk. The update changed the extent of these regulated areas increasing the amount of land regulated by NVCA by 1.02% throughout the watershed and added areas along the Georgian Bay shoreline extending 5 km into the lake.
- processed 1,065 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 25 violations under the *Conservation Authorities Act*
- participated in Ontario Municipal Board hearings in Midhurst and Collingwood, as well as court proceeding regarding contraventions under Section 28 of the *Conservation Authorities Act*
- continued to develop and finalize municipal planning streamlining agreements with member municipalities, including a memorandum of understanding with Innisfil and a large fill protocol with New Tecumseth



Land Operations & Stewardship Services

NVCA's Land Operations 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 78 annual passes for NVCA conservation areas and 99 hunting passes
- hosted 27 wedding celebrations between March and November
- acquired 86 acres of conservation lands, adding to the NVCA's protected conservation property in the Minesing Wetlands
- eradicated several large patches of phragmites, an invasive plant, in the Minesing Wetlands
- managed the clean-up and restoration of a large section of the Tiffin Centre for Conservation after a tornado destroyed 12 acres of forest and 13 outbuildings; rebuilt portions of the Sugar Shack, the low ropes course, three storage sheds and group campground washrooms; planted 150 large-caliper trees thanks to volunteers/donations
- made several additional improvements at the Tiffin Centre, including expanding parking facilities thanks to a donation by the Rotary Club of Barrie, erecting two sand storage sheds and a new skating shed near Papa Bear Pond, and building a large stone fireplace at the group campground
- installed a back-up generator at the Hix Administration Building, allow for continued operation during power outages
- unveiled a memorial at Historic Fort Willow in honour of the of Royal Newfoundland Regiment Soldiers who served during the War of 1812
- installed signs at Fort Willow highlighting the augmented reality smart phone application available at the site



Healthy Waters Program

- secured \$446,600 of federal funding support from the Lake Simcoe and Georgian Bay Cleanup Fund to support watershed stewardship projects under the Healthy Waters Brook to Bay Program
- helped farmers access \$145,000 of grant funding for 28 habitat and water quality improvement projects through the Water's Edge Transformation Program offered through the Ontario Soil and Crop Improvement Association
- in partnership with Nature Conservancy Canada, reconnected 5.5 km of fragmented trout habitat and mitigated about 6 C of water warming by creating 270 m channel-bypass around an on-stream pond in Clearview
- created fish habitat structures along 6 km of the Mad River with volunteers in partnership with Nature Conservancy Canada
- planted 1.6 ha of forest in the Minesing Wetlands with the help of 107 volunteers and support from the landowner, Nature Conservancy Canada and TD Tree Days
- reduced 61 kg/year of phosphorus runoff to Innisfil Creek by constructing two manure storages and clean-water diversions in partnership with farmers and New Tecumseth
- created 0.2 ha wetland with two turtle nesting beaches and reduced manure runoff improving 310 m of headwater stream on a farm in Mono
- planted trees along 400 m of Besley Creek with volunteers in Shelburne. Since 2010, more than 7,386 native trees and shrubs have been planted to restore over 2 km of streamside habitat in Shelburne!

Community River Restoration

- secured \$694,000 of federal funding support from the Lake Simcoe and Georgian Bay Cleanup Fund to implement the Nottawasaga Watershed Improvement Project (NWIP) and, the Innisfil Creek and Upper Nottawasaga Watershed Improvement Project
- partnered with the South Simcoe Streams Network, Nottawasaga Futures and 388 community volunteers to plant 3,447 trees along 1.2 km of stream in Adjala-Tosorontio, Essa, Innisfil and New Tecumseth
- with NWIP and the Georgian Triangle Anglers' Association, restored 140 m of urban trout habitat in Collingwood along the Black Ash Creek
- restored 120 m of stream habitat along the Willow Creek in Springwater
- excluded livestock from 250 m of stream and stabilized 80 m of bank along the Lamont Creek in Clearview
- completed a dam decommissioning and stream channel restoration study for Black Ash Creek at the Petun Conservation Area in The Blue Mountains
- partnered with Essa Township to commission a design study for restoration of the Pine River and stabilization of 100 m of erosive stream bank at the LeClair Soccer Field in Angus
- provided technical and project management support to the Headwaters Streams Committee and Mono Township for their dam removal project on Baker Creek
- coordinated a community canoeing/educational event on the Nottawasaga River at Wasaga Beach



Forestry Program

- planted 161,650 trees on 21 different properties, creating 213.1 acres of new forest
- received financial contributions (outside of levy) from provincial and municipal governments, corporations and private landowners totaling \$278,331
- conducted Arbour Day sales in two municipalities, selling 2,000 tree seedlings to support watershed tree-planting programs and encouraging residents to plant trees appropriate to site conditions
- managed 895.8 acres of forest; worked with landowners to develop 27 Managed Forest Plans

Environmental Education & Public Events

- provided environmental education to 11,457 youth in all education initiatives combined
- provided outdoor recreation and education to 187 youth attending the Camp Tiffin summer day camp program
- 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
 - 'Fright at the Fort' Nature at Night—200 participants
- Worked closely with corporate services in delivering programming at the International Plowing Match (IPM)

Lands & Stewardship BY THE NUMBERS

86

acres of conservation lands acquired

12,875

acres of conservation lands managed in total

115

stewardship and forestry projects completed

\$492,725

awarded to watershed landowners for stewardship and forestry projects

173,496

trees planted in all programs

895.8

forest acres managed

15.02

km stream protected or rehabilitated

Environmental Education BY THE NUMBERS

205

schools/groups visits to Tiffin Centre

11,457

students participated in education programming at Tiffin Centre

16,750+

people reached through NVCA public programming, including IPM



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.

Water Resources & Flood Warnings

- issued 14 flood messages
- improved the NVCA stream gauge network, equipping flood monitoring stations with solar panels, batteries and new data loggers
- inspected flood and erosion control structures, including Utopia, New Lowell and Tottenham Dam
- reviewed 100 stormwater management submissions related to subdivisions, site plans and environmental assessments
- developed an online phosphorus-loading tool to assess pre- and post-development phosphorus loadings from new development in the watershed
- baseflow monitoring at 76 sites and provincial water quality monitoring at 18 sites
- initiated a reference site research project with the Ministry of the Environment and Climate Change and other conservation authorities to improve watershed reporting and analysis of benthic macroinvertebrates (small aquatic "bugs" that are an indicator of stream health)
- worked with the Conservation Authorities Moraine Coalition to report on forest cover and groundwater and surface water quality in support of the *Report Card on the Environmental Health of the Oak Ridges Moraine and Adjacent Greenbelt*
- completed a detailed study of the forest change in the Minesing Wetlands between 1953 and 2013

Watershed Monitoring

- monitored water quality throughout the watershed: benthic monitoring at 74 sites,
- updated Minesing Wetlands vegetation community mapping

- conducted annual breeding bird surveys at the Tiffin Conservation Area and in Minesing Wetlands
- continued to support invasive species monitoring, control and education efforts in the watershed

Groundwater Monitoring

- monitored groundwater at 18 locations in the watershed for water levels and ambient water quality as part of the NVCA Provincial Groundwater Monitoring Network; added three new wells to the program
- monitored groundwater at 18 locations as part of the South Simcoe Groundwater Monitoring Network with wells from the Ontario Geological Survey 3D South Simcoe Geological Project
- installed two long-term drilled monitoring wells in the recharge area of the eastern aspect of the Minesing Wetlands
- completed three special studies related to groundwater management: NVCA Water Table Fluctuation Study, Jurisdictional Review for the Administration of a Groundwater Drought Indicator, and Groundwater-Surface Water Drought Declaration Period Correlation Study

Source Water Protection

- after public consultation and Ministry comment, submitted the amended South Georgian Bay Lake Simcoe Source Water Protection Plan in July 2014 to the Ministry of the Environment and Climate Change for approval; implementing this plan will be a significant step in protecting municipal drinking water across the watershed
- assumed delegated Risk Management Official/Part IV responsibilities from Essa, Collingwood, Mono, Mulmur, New Tecumseth and Shelburne

Geographic Information Systems (GIS) & Information Technology

- developed and launched a new web-based river monitoring gauge network, allowing municipalities and other partners to access real-time water flow data
- worked with planning services to update the input criteria showing areas where NVCA regulates to reflect the 2014 Generic Regulation Limits
- improved staff efficiency through continued database and user application development and maintenance
- continued to support the web-based Source Water Protection - Threats Verification Application
- converted mapping data to meet new GIS standards
- implemented off-site data storage, better securing NVCA's electronic data in case of disaster

Engineering & Tech Services BY THE NUMBERS

14

flood messages issued

100

stormwater management plans reviewed

18

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

74

sites monitored for benthic macroinvertebrates, a measure of stream health

76

sites monitored for stream baseflow

36

wells monitored for groundwater quality and water level





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 resource, communications and administrative leadership.

Governance

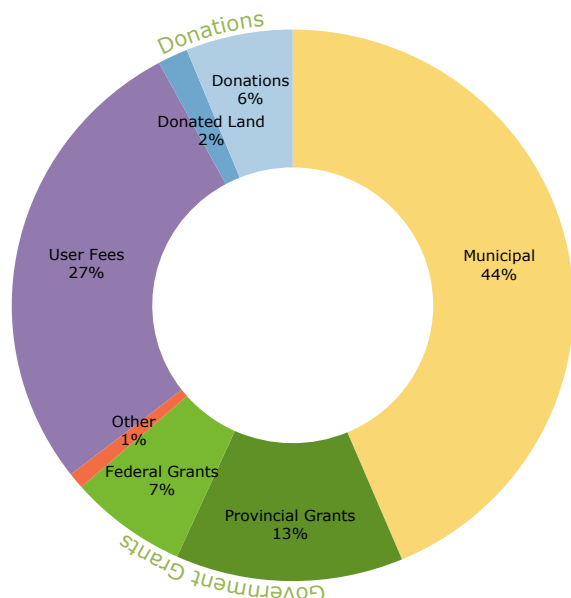
- acted on six key recommendations in the Service Delivery and Operational Review
- established five new board advisory committees: agriculture; finance and administration; human resources; lands, education and stewardship; and planning and engineering
- updated the Board of Directors Governance and Administrative Policies

Corporate Support/Communications

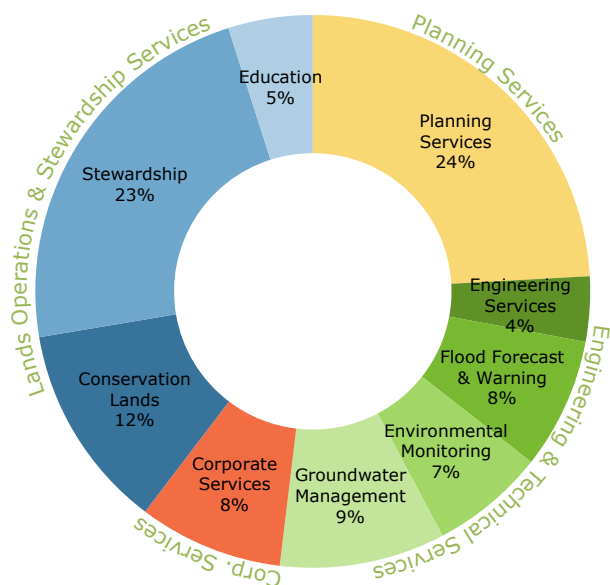
- introduced the first annual Client Satisfaction Report under the authority's Customer Service Strategy & Charter
- continued to enhance opportunities for client feedback in order to track customer satisfaction and identify areas for improvement
- processed seven Freedom of Information requests
- updated the NVCA website, nvca.on.ca, to allow for better accessibility, search functionality and use on smart phones and tablets
- after launching mid-way through 2013, continued to reach out to the public through social media, with 665 Twitter followers and 357 Facebook likes at year's end
- hosted two displays at the 2014 International Plowing Match in Ivy, Ontario (Essa Township); more than 12,000 students and hundreds of parents, teachers and volunteers came through the displays over a five-day period
- provided financial, human resources, communications and other administrative support to the board of directors and all NVCA departments

Financial Summary

Revenues (\$4,867,555)



Expenses (\$5,028,253)



In 2014, NVCA had total revenues of \$4,867,555. These funds came from diverse sources, including member municipalities, provincial and federal governments, local non-governmental partners, and user fees for programs and services. Expenses were held to \$5,028,253.

The 2014 balanced budget as approved required the use of \$287,357 from NVCA's reserves. With solid revenue performance including new funding partnerships, and expenditure control, the NVCA ended the year requiring the use of just over \$177,000.

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 2014.



NVCA Staff

Permanent and long-term contract staff as of December 31, 2014.

Office of the CAO

D. Gayle Wood, Chief Administrative Officer (interim) • Laurie Barron, Executive Assistant

Corporate Services

Sheryl Flannagan, Director, Corporate Services • Heather Kepran, Communications and Public Relations Coordinator • Christine Knapp, Finance Administrative Coordinator • Debbie Swindells, Accounts Receivable/Payroll Clerk • Kimberly Winder, Receptionist/Administrative Associate

Engineering & Technical Services

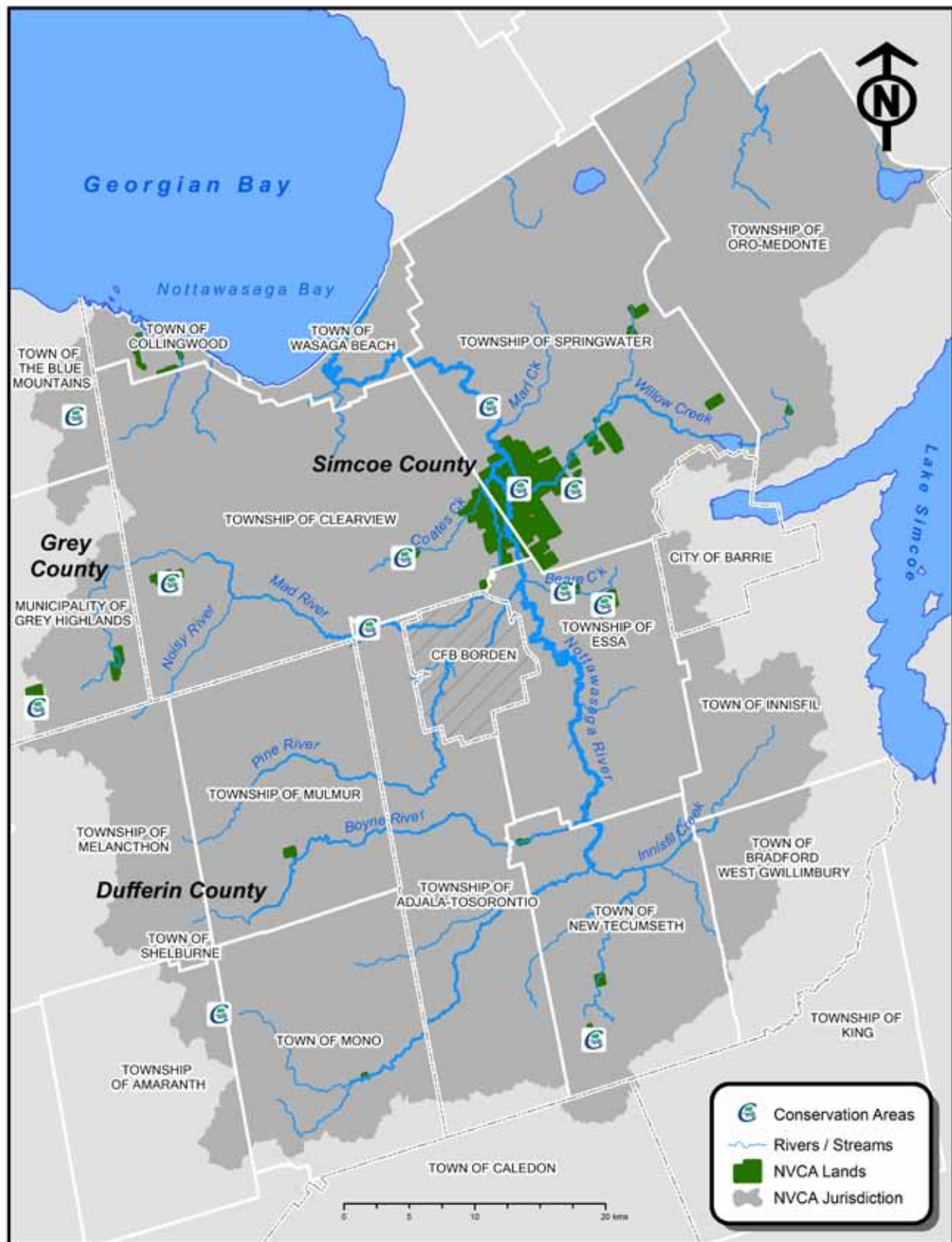
Glenn Switzer, Director, Engineering & Technical Services • Hendrik Amo, Manager GIS/IT • Robert Bettinelli, Database Programmer • Stephanie Durocher, Water Resources/Flood Program Coordinator • David Featherstone, Manager, Watershed Monitoring • Ian Ockenden, Watershed Monitoring Specialist • Stephanie McPhie, Groundwater and Special Projects Assistant • Ryan Post, Hydrogeologist/Source Water Protection Coordinator • Tom Reeve, Water Resource Engineer • Michael Saunders, Groundwater Technical Assistant • Sheri Steinginga, Water Resources Assistant • Lyle Wood, GIS Technician

Land Operations & Stewardship Services

Byron Wesson, Director, Land Operations & Stewardship Services • Sarah Campbell, Aquatic Biologist • Clint Collis, Acting Manager, Lands & Operations • Nathan Cutler, Lands & Operations Technician • Fred Dobbs, Manager, Stewardship Services • Rick Grillmayer, Forestry Program Coordinator • Jessica Nurmsoo, Environmental Education Assistant • Henry Pelley, Maintenance Technician • Linda Raeburn, Environmental Education Coordinator • Naomi Saunders, Environmental Education Assistant • Shannon Stephens, Healthy Waters Program Coordinator • Alisha Tobola, Afforestation Technician

Planning Services

Chris Hibberd, Director, Planning Services • Jeff Andersen, Environmental Officer • Lee Bull, Development Review Planner • Logan Juffermans, Planning Assistant • Barbara Perreault, Senior Environmental Officer • Tim Salkeld, Resource Planner



Nottawasaga Valley Conservation Authority

John Hix Administration Centre
8195 8th Line
Utopia, ON, L0M 1T0
705-424-1479 • nvca.on.ca



A member of:

