



**Nottawasaga Valley
Conservation Authority**
2022 Program Overview

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OUR VISION

A sustainable watershed that is resilient to the effects of climate change, urban growth and other stressors and provides for safe, healthy and prosperous people and communities.

OUR MISSION

Working together to deliver innovative, integrated watershed management that is responsive to the environmental, economic and social sustainability of the Nottawasaga Valley watershed.

WHAT WE VALUE

An abundance of clean water, clean air and fertile soils that provide for healthy people and ecosystems.

Natural heritage systems and the ecosystem services they provide, particularly as they support resilience to the effects of a changing climate.

Distinctive landforms and waterways including the Georgian Bay coastline, Niagara Escarpment, Minesing Wetlands and others that give our watershed a unique sense of place.

Quality recreational opportunities that our hills, forests, meadows, wetlands, waterways and coastline provide for residents and tourists alike.

A wealth of resources within the capacity of our watershed to provide for thriving communities, successful economies and sustainable agriculture, now and in the future.

Watershed Science

\$463K
4.0 FTEs

RESTORATION SERVICES

\$1.02M
4.2 FTEs

PLANNING & DEVELOPMENT

\$1.42M
11.9 FTEs

CORPORATE SERVICES

\$1.14M
10.7 FTEs

EDUCATION

\$180K
2.0 FTEs

FLOOD MANAGEMENT

\$328K
2.5 FTEs

CONSERVATION LANDS

\$542K
4.8 FTEs

NVCA Profile

2021 represents the NVCA's 61st anniversary of providing services to our watershed. Since 1960, we have worked with our municipal partners to provide programs and services that bring to life our vision of a vibrant watershed that supports healthy environments, communities and lifestyles. In 2021, we continue on this course of action as we work to manage and protect our watershed. It is important to note that the pandemic has and will continue to impact the organization, programs and services and ultimately may impact our goals.

NVCA employs approximately 50 full-time, part-time, contract and seasonal staff across numerous professional fields. Our employees uphold our mandate under the seven service areas listed below and detailed in the pages that follow.



FUNDING CONSERVATION

NVCA's 2022 operational budget is \$5,095,130, which includes a total levy contribution of \$2,654,593. This corresponds to \$13.03 per watershed resident. The budget includes almost \$500K in leveraged funding. When combined with fee for service revenues, 51% of NVCA's budget is funded through non-levy sources of funding. While the average CA levy supporting operations was \$16.42/capita in 2018, the NVCA remains at only \$13.03/capita.

While this builds a strong case for support, it is not enough to improve the health of our watershed; improve water quality; protect from flooding; provide open spaces and trails that are accessible for people to use; and connect and restore forests wetlands and habitats. These services are required for communities to build resilience to climate change, and most importantly, attracting and retaining the talent and economic opportunities that this watershed desires.



Sustaining the watershed is not our work alone. It is what we do together with municipalities, our neighbours, universities and colleges, donors, local and regional agencies, and the many other partners we work with. We need to celebrate our successes but we also need to increase the scope, scale and intensity of our joint efforts to create a place we can be proud of and celebrate – one we can call home. For life.

Program Name	Cost/Resident
Drinking Source Water Protection	\$0.00
Watershed Monitoring	\$1.15
Education	\$0.12
Forestry Services	\$0.37
Watershed Stewardship & Restoration	\$0.87
Flood Management	\$1.12
Corporate Communications	\$0.50
GIS & Information Management	\$1.35
Financial Management	\$1.60
Governance	\$1.60
Human Resources	\$0.44
Conservation Lands	\$1.74
Planning & Development	\$2.16

WATERSHED SCIENCE

\$463K / 4.0 FTEs

The goal of the Watershed Science program is to manage water and ecological monitoring and to ensure that the organization has adequate and accurate scientific information to support both internal and external partners. This program also works to reduce the risks associated with drinking water to ensure that there is safe, clean and adequate supply of water.

Drinking Water Source Protection

The Source Water Protection Program ensures a sustainable and safe source of clean drinking water to residents within the South Georgian Bay-Lake Simcoe Source Protection Region. NVCA does this by meeting our legislative requirements within the Clean Water Act and ensuring policies in the Source Protection Plan are implemented. This program also includes Risk Management Official duties as prescribed by agreements with municipalities.

2021 Achievements

- Initiated review and amendments to the source protection plan, as directed by the Ministry of Environment, Conservation and Parks.
- Undertook the development of Risk Management Official work for nine delegated municipalities.
- Completed amendments to the Source Protection Plan to include new drinking water systems, as required by Ontario Regulation 205/18 of the Safe Drinking Water Act.
- Completed work in support of Section 36 Source Protection Plan update.

2022 Focus

- Undertake the development of Risk Management Plans for the nine delegated municipalities.
- Review planning applications under Section 59 of the Clean Water Act to ensure compliance with the South Georgian Bay Lake Simcoe Source Protection Plan.
- Complete amendments to the source protection plan to include new drinking water systems, as required by Regulation 205 of the Safe Drinking Water Act.

Service Pressures

This source water protection program (not including Risk Management) has always been fully funded by the Province and there is uncertainty about continued funding.



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Watershed Monitoring

The Watershed Monitoring program monitors the natural resources in the Nottawasaga Watershed including the status of fish and benthic macroinvertebrate populations found in rivers and streams. These programs aim to identify emerging issues and document environmental trends to support science-based adaptive management.

2021 Achievements

- Completed key components of the integrated watershed monitoring data management platform.
- Completed website update of the watershed science page.
- Completed the natural heritage program strategy and the monitoring program strategy.
- Initiated the development of a watershed-scale natural heritage system.
- Initiated ecological significant groundwater recharge area modelling.
- Completed the land use cover layer update.
- Completed watershed monitoring program delivery.

2022 Focus

- Undertake the development of a watershed-scale natural heritage system.
- Undertake the development of an open source data portal for key watershed science data.
- Undertake data transformation to enhance digital data visualization of key data sets.
- Complete the delineation of ESGRA and key natural hydrologic features.
- Continue to update wetland inventories.
- Initiate analysis in support of 2023 Conservation Ontario watershed reporting.
- Continuation of watershed monitoring program delivery.

Service Pressures

There are challenges around predictability and certainty of project-specific funding agreements with municipal, provincial and other partners.

EDUCATION

\$180K / 2.0 FTEs

Program Overview

The Environmental Education program works with multiple partners to provide the best learning opportunities for youth and adults who participate in programming.

2021 Achievements

- Through multiple new challenges, the program delivered quality educational opportunities to help participants connect with nature in a meaningful way.
- Delivered programs to 2202 children in around the NVCA watershed to help youth connect to nature through outreach education in their own communities and a strong presence was on-line as well.
- Welcomed 35 new Canadians participants through a new program that showed participants how to get out into nature through camping, cooking outdoors, and canoeing.
- Resumed Camp Tiffin and hosted 400+ campers at the Tiffin Centre for Conservation. Campers played, learned, made friends and memories while in the forest.

2022 Focus

- Forest school programming to begin in Fall 2021 with a soft opening, and a full opening in 2022.
- Develop water quality education programming with a real world science connection. Data collected by NVCA educators may be consolidated with data managed by the Watershed Science program.
- Partial rollout of climate change programming in Fall of 2021 and full rollout in in the Spring of 2022
- Build capacity for teach and guide the microplastics programming.

Service Pressures

- Geographic expanse of watershed service area has resource implications.
- School board funding uncertainties through the pandemic.
- Developing and sharing quality outdoor educational opportunities remotely through various appropriate platforms during the pandemic.
- Maintain qualified part-time/casual staff to improve the transition back to teaching when pandemic is over.
- Sharing the educational building with other departments limits current service capacity.





RESTORATION SERVICES

The goal of NVCA's Restoration Services programs is to manage natural heritage systems in the watershed by identifying and implementing restoration programs.

Forestry Services

\$418K / 1.2 FTEs

The Forestry Services program contributes to watershed and community health by implementing best forest management practices, including managing forested land and expanding forest cover. Well managed forests protect, enhance and restore land by helping to achieve water quality targets mitigate floods and build resilience to climate change. NVCA is now the only agency providing this service to watershed residents.

2021 Achievements

- Planted 90,600 trees on 29 properties across the watershed creating 46 hectares of new forest including 6.25km of windbreaks, and 16.93km of streams protected with permanent tree cover
- Received financial contributions (outside of levy) from Federal, Provincial and municipal governments, Simcoe County, Forests Ontario, corporations and private landowners totaling \$289,800.
- Managed over 571 hectares of forest; worked with 30 landowners to develop their Managed Forest Plans.

2022 Focus

- Plant approximately 130,000 trees on properties throughout the watershed.
- Create more than 68.8 hectares of new forest including 7 km of windbreaks, and protect 20 km of streams with permanent tree cover.
- Assist landowners in managing over 405 hectares of forest to maintain forest health.
- Hold the 31st Annual Arbour Day Tree Sale (cancelled in 2020 and 2021), helping landowners to create their own forests.
- Begin securing agreements for the 2023 tree planting. Continue to diversify possible sources of funding.

Service Pressures

- Rapid urbanization and competing land use interests' impact available land for tree planting.
- Uncertainty around funding from partners and provincial government.
- Accelerating ash mortality due to the expansion of the Emerald Ash Borer will greatly impact forest cover throughout the watershed.



Watershed Stewardship and Restoration

\$602K / 1.2 FTEs

NVCA's Watershed Stewardship and Restoration program aims to restore river and wetland habitat and support agricultural and urban water quality improvement projects. This enhances the ecological health of the watershed and provides enhanced economic and recreational opportunities.

2021 Achievements

- Implemented a wide range of water quality and habitat improvement projects throughout the watershed by incorporating private landowner and volunteer engagement.
- Collaborated with Nottawasaga Futures and a wide range of partners to improve habitat for trout/northern brook lamprey and enhance water quality in the Upper Nottawasaga River in Adjala-Tosorontio.
- Improved trout habitat and water quality in Black Ash Creek in the Petun Conservation Area by planting trees and installing in-stream habitat in the new stream and escarpment valley.
- Collected water temperature and land use data for developing a river habitat restoration plan for the Pine River in Mulmur Township.
- Work with NVCA's Communications Coordinator to develop a mini-documentary highlighting the recreational and economic benefits of healthy coldwater fisheries in the NVCA watershed.

2022 Focus

- Implement a wide range of water quality and habitat improvement projects throughout the watershed by incorporating private landowner and volunteer engagement.
- Improve trout habitat and water quality in the Nottawasaga River, Sheldon Creek, Boyne River and Innisfil Creek sub-watershed through collaboration with a wide range of partners.
- Finish collecting background environmental data and develop a trout habitat and water quality improvement plan for the Pine River in Mulmur Township.
- Address urbanization pressures by developing a phosphorus offsetting program for Willow Creek in Oro Medonte and Springwater and Little Lake in Barrie.
- Develop plans and begin implementation of wetland habitat compensation projects.

Service Pressures

- Accessing funding for project costs, permanent staff and contract staff. The program generates approximately 3/4 of its budget through external revenue sources.
- Balancing field work and developing/submitting funding applications and reporting to sponsors.
- The need for a punt boat electro-fisher to sampling fish and collecting habitat restoration performance data for some of the larger trout streams in the watershed.

FLOOD MANAGEMENT

\$328K / 2.5 FTEs

The goals of the Flood Management program are to reduce the risk to people, property and infrastructure, minimize social disruption due to hazards related to flooding and erosion and to encourage the use of natural flood management practices. This is a delegated responsibility from the Province and the NVCA helps maintain the federal-provincial surface water monitoring network

2021 Achievements

- Monitored flood and low water conditions.
- Inspected and operated flood and erosion control structures, including Utopia, New Lowell and Tottenham dams as well as the Pretty River dyke.
- Monitored ice conditions throughout the watershed.
- On-going maintenance and improvements to the NVCA stream and weather gauges to improve data quality and reliability.
- Further developed criteria for a Georgian Bay shoreline flood warning statement.
- Completed Pretty River Dyke maintenance project (Phase 1).
- Launch NVCA Stormwater Management Technical Work Group.
- Awarded contract to maintain City of Barrie rain gauge network.

2022 Focus

- Update the watershed hydrology & transfer flow regime to the generic regulation model.
- Conduct the Pretty River Dyke maintenance project (Phase 2).
- Conduct the Pretty River Dyke safety study.
- Review and begin implementation of recommendations from New Lowell and Tottenham dam safety studies.
- Enhance data management for snow data.

Service Pressures

- Increased pressure on staff and resources to respond to flood events.
- Reduced resources due to provincial funding cuts.
- Understanding the impact of sustained high water levels of Georgian Bay.
- Time requirements to build new models and analyze large volumes of data.





PLANNING & DEVELOPMENT

\$1.42M / 11.9 FTEs

Planning Services, which includes engineering, permitting and enforcement, ensures that development in the watershed progresses in a sustainable manner that will protect natural heritage features, direct development away from natural hazard lands and protect our water resources. NVCA follows a planning first principle which ensures that planning permissions are in place before we consider any further approvals under the Conservation Authorities Act.

2021 Achievements

- Continued to process applications and inquiries under various provincial acts: Conservation Authorities Act, Planning Act, Niagara Escarpment Planning and Development Act, Aggregate Resource Act, Green Energy Act, Drainage Act, and Environmental Assessment Act.
- Continued to look for opportunities to stream line the review procedures of applications.

2022 Focus

- Update guideline and policy documents to reflect new provincial legislation.
- Continue looking for opportunities with municipalities and partners to streamline processes for the review of applications.
- Continue to use and provide updates to Memorandums of Understanding to provide effective and efficient service.
- Continue to improve review procedures to ensure timely approvals for development applications.
- Promote storm water management/low impact development guidance for municipal plans.

Service Pressures

- Program operates on a cost recovery basis.
- Increasing growth, development and associated changes in land use in the watershed.
- Continued growth and issues with excess fill have resulted in an increase in the number of violations.
- Uncertainty around legislative amendments through provincial review of conservation authority permitting processes and how that will impact service delivery.

CONSERVATION LANDS

\$542K / 4.8 FTEs

Conservation Lands ensures that valuable greenspace is protected and that recreational opportunities are provided in safe, well maintained natural settings so that watershed residents can enjoy a high quality of life. NVCA manages 5,260 hectares of conservation land, including the internationally significant Minesing Wetlands.

2021 Achievements

- Ensured continued safe access to NVCA conservation areas and events.
- Maintained property leases with local partners and municipalities to provide agricultural and recreational opportunities within the watershed.
- Enhanced recreational opportunities and accessibility at the Utopia Conservation Area.
- Improved visitor experience at Nottawasaga River access point - Minesing Conservation Area.
- Engaged with conservation area visitors through customer service surveys.
- Implemented recommendations from the hunting program review.
- Completed visitor mitigation projects in partnership with the Town of Collingwood.
- Provided interdepartmental support for NVCA programs, including Forestry, Stewardship and Flood.
- Undertook hazard tree removals resulting from Emerald Ash Borer infestation.

2022 Focus

- Development of property management plan for Springwater Conservation Area and NVCA's "Reserve Properties"
- Partnership development with the Township of Springwater for the Edenvale Conservation Area.
- Navigate changes to operations resulting from Conservation Authorities Act review.
- Anticipated recovery of events and public festivals.

Service Pressures

- Opportunities to improve and enhance recreational and infrastructure options on our properties are limited due to resources.
- Exponential growth of conservation area users during provincial lockdowns during pandemic.
- Proximity to large urban centers increases guest expectations on facilities and conservation areas. Combined with increased population density within the watershed, NVCA faces increasing land management challenges and higher maintenance needs.
- Changing climate resulting in noticeable impacts on infrastructure and recreational opportunities.



Eco-Washrooms

These eco-washrooms are designed to be sustainable and environmentally friendly. They use composting toilets and waterless urinals to reduce water consumption and waste. The structures are built with durable, weather-resistant materials and are easy to maintain. They are ideal for use in remote areas or where water supply is limited.

For more information, visit www.nps.gov/eco-washrooms

CORPORATE SERVICES

Corporate Services plays a critical supportive role to the Board of Directors and across the organization, providing finance, human resources, communications and administrative leadership. This department is an enabling service, supporting the other six service areas in the organization. Corporate Services consists of the following program areas:

Corporate Communications

\$1.02K / 1.0 FTE

Corporate Communications provides strategic advice and services designed to inform, inspire, influence and motivate municipal, provincial, federal partners and people of all ages in our watershed communities to support the work of NVCA.

2021 Achievements

- Continued to grow social media outreach and newsletter subscribers, with focus on NVCA programs and events.
- Revamped the Science section of the website to help watershed residents have a better understanding of NVCA's permitting process.
- Created videos on the NVCA website and social media to showcase the work of various departments
- Designed graphics, brochures, reports and other materials to help promote programs
- Expanded photo library

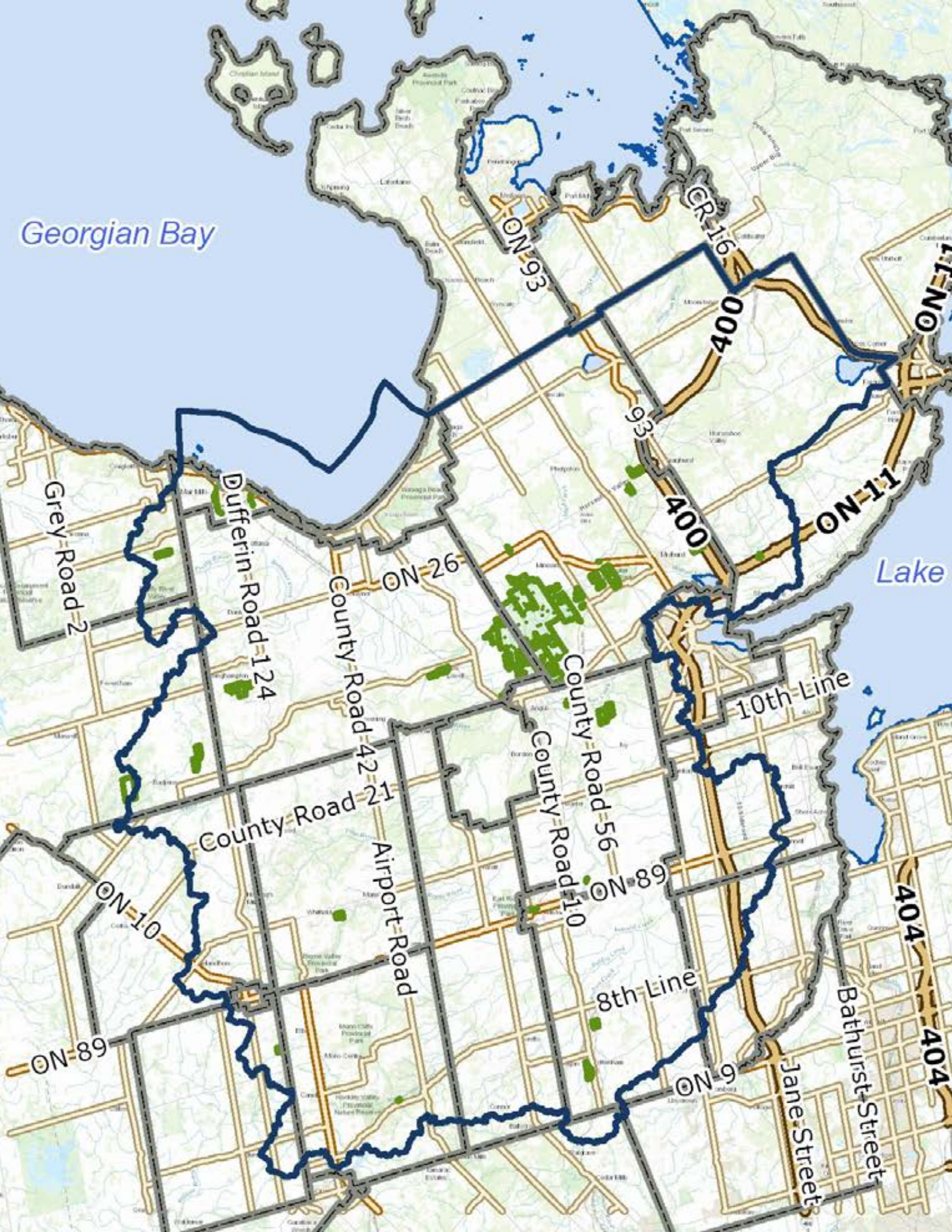
2022 Focus

- Continue to grow social media outreach and newsletter subscribers.
- Continue to revamp more sections of NVCA's website.
- Continue to ensure AODA compliance with provincial standards.
- Continue to create videos to enhance engagement with the public and stakeholders

Service Pressures

- Dealing with challenges associated with effectively reaching audiences and changing population across the watershed while keeping in mind the geographic, demographic and socio-economic span and diversity of the watershed.
- Clarify NVCA's role and services in urban and rural areas.
- Resources to create insightful and informative videos





Georgian Bay

Lake

Grey Road 2

Dufferin Road 124

County Road 42

County Road 21

Airport Road

County Road 56

County Road 110

8th Line

10th Line

Jane Street

Bathurst Street

404

404

ON 26

ON 93

CR 16

93

400

400

ON 11

ON 16

ON 10

ON 89

ON 89

ON 9



Geographic Information Systems & Information Management

\$275K / 2.7 FTEs

Geographic Information Systems (GIS) and Information Management is responsible for providing data integrity while managing a secure, reliable and integrated information technology environment that aligns our business and strategic goals.

2021 Achievements

- Enhanced Camp Tiffin registration system.
- Developed public facing GIS mapping tools for NVCA data and applications.
- Implemented a new Telephony solution.
- Carried out NVCA IT Infrastructure replacement strategy including Backup Server.
- Implemented new Network and Email security.
- Updated NVCA building security system.
- Supported flood hazard mapping program and data preparation for Regulation mapping updates.

2022 Focus

- Continue development of a Watershed Science data management platform providing viewing, upload and querying capabilities linked to the GIS system.
- Core data management, open data strategy, and update schedule for care dataset, focusing on hydrography in 2021
- GIS mapping tools for NVCA data and applications
- IT infrastructure replacement as per the Asset Management Strategy

Service Pressures

- Systems security is a constant threat that must be balanced with the costs to keep the network running smoothly and safely.
- Maintaining larger and more complex data holdings as the need for program support and analysis continues to increase. There has been a significant increase in provincial, municipal and public expectations for information, data analysis tools and predictive modeling.
- As technology advances so does the need to bring the organization forward with innovative solutions.

Financial Management

\$326K / 3.9 FTEs

Financial Management is responsible for all of our day-to-day financial operations, such as payroll and accounts payable/receivable. Other areas include budgeting, procurement, risk management, legal, quarterly and annual financial reporting, records management, reception, and freedom of information requests/reporting.

2021 Achievements

- Completed implementation of Electronic Fund Transfer (EFT system).
- Processed Freedom of Information requests.
- Continued the paperless initiative to reduce our environmental impact.
- Produced clean 2020 Audit.

2022 Focus

- Creating new budget template to match new Provincial regulations.
- Ensuring clean 2021 audit.

Service Pressures

- Budget pressures to minimize the levy requirements from member municipalities while still achieving integrated watershed management plan activities.
- Financial management requires continued compliance with changing external legislation for reporting, payroll and tax.

Human Resources

\$89K / 0.8 FTEs

Responsible for the effective management of people in the organization through the provision of services such as staff recruitment, health and safety, diversity, inclusion and accessibility, employee learning and development, benefit and insurance administration and performance management.

2021 Achievements

- Ensured human resources management best practices were followed through connections with other CA's and municipalities.
- Ensured the Health & Safety of our employees was paramount during the pandemic.
- Updated employment policies as required.
- Completed recruitment as required.

2022 Focus

- Respond to unknown/emerging recruitment needs.
- Review and update employment policies.

Service Pressures

- Finding talent to replace "hard to fill" positions as required.
- Responding to matters resulting from the Provincial government's review of municipalities and conservation authorities.





Governance

\$308K / 2.3 FTEs

The Chief Administrative Officer (CAO) provides expert knowledge, strategic advice and recommendations to the Board of Directors with regard to policy, program and budget decisions. The CAO also provides operational leadership to staff, guiding and influencing processes, decisions and implementation, with the goal of advancing NVCA's mission. Governance supports Board Member decision making and leadership by promoting and facilitating the participation of municipal members on the Board of Directors. NVCA staff provide timely professional support, information and recommendations, through meetings with members of the Board, who guide the NVCA into the future.

2021 Achievements

- Efficiently and effectively managed water resources in the NVCA watershed for current and future generations through essential and integrated programs.
- Ensured the NVCA Board of Directors acts in the long-term best interests of the NVCA by providing an overarching perspective in managing strategic, structural, cultural, economic and technological changes while ensuring that new initiatives are well aligned with the NVCA's portfolio and abilities.
- Built new partnerships and new business models while continuing to develop relationships with existing partners such as businesses, watershed stakeholders

2022 Focus

- Cultivate partnerships with the private sector, watershed municipalities, ENGOs and provincial and federal governments to ensure the NVCA continues to implement programs and services.
- Continue to lead and advocate for innovative approaches and projects to support the Integrated Watershed Management Plan.

Service Pressures

- Regulatory and mandated changes to conservation authority programs and services.



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Member of



Conservation
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