



# **Nottawasaga Valley Conservation Authority**

## 2023 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.

# NVCA Profile

2023 represents the NVCA's 63st 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 2023, we continue on this course of action as we work to manage and protect our watershed.

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 2023 operational budget is \$5,687,989, which includes a total levy contribution of \$2,791,642. This corresponds to \$13.62 per watershed resident. The budget includes almost \$900K in leveraged funding. When combined with fee for service revenues, 52% 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 \$13.62/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.

**PLANNING & DEVELOPMENT**

\$1.58M  
13.1 FTEs

**FLOOD MANAGEMENT**

\$353K  
2.5 FTEs

**Watershed Science**

\$480K  
3.75 FTEs

**EDUCATION**

\$234K  
4.8 FTEs

**CONSERVATION LANDS**

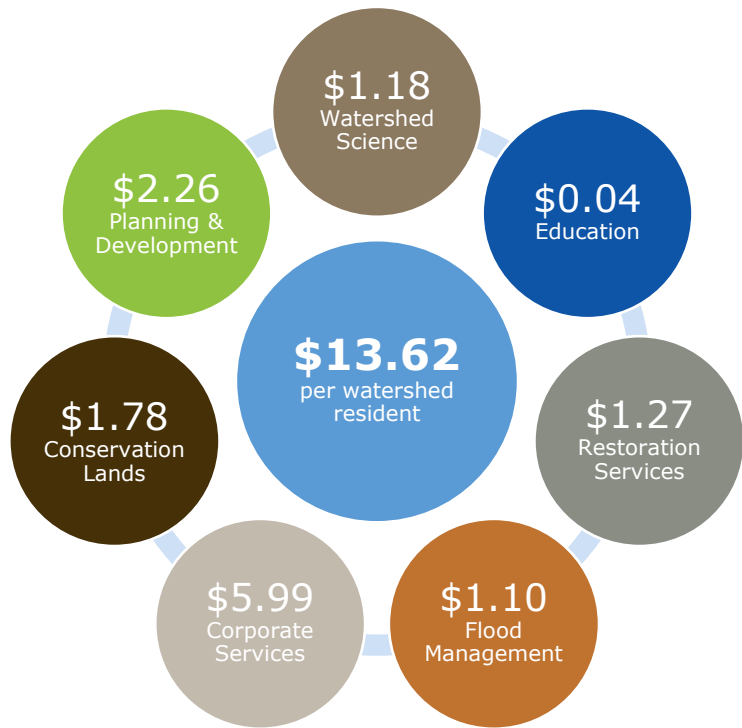
\$631K  
6.25 FTEs

**RESTORATION SERVICES**

\$1.12M  
5.2 FTEs

**CORPORATE SERVICES**

\$1.30M  
11.4 FTEs



Program Name	Cost/Resident
Drinking Source Water Protection	\$0.00
Watershed Monitoring	\$1.18
Education	\$0.04
Forestry Services	\$0.39
Watershed Stewardship & Restoration	\$0.88
Flood Management	\$1.10
Corporate Communications	\$0.62
GIS & Information Management	\$1.78
Financial Management	\$1.55
Governance	\$1.68
Human Resources	\$0.35
Conservation Lands	\$1.78
Planning & Development	\$2.26



# PLANNING & DEVELOPMENT

**\$1.58M / 13.1 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 promotes a planning first principle which ensures that planning permissions are in place prior to considering approvals under the *Conservation Authorities Act*.

## 2022 Achievements

- Continued to process applications and inquiries under various provincial acts including the 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 application review process.
- Retained Watson and Associates to under take a review of program rates and review fees.
- Mid-year reporting indicted that regulations staff met Provincial timelines 96.4% of the time while adjusting to NVCA's Hybrid Remote Work Policy.

## 2023 Focus

- Update guideline and policy documents to reflect new provincial legislation.
- Continue to work with municipalities and other partners to streamline the application review process, and ensure timely approvals for development applications.
- Continue to use and provide updates to Memorandums of Understanding agreements to provide effective and efficient service.
- Promote storm water management and Low Impact Development in municipal plans.
- Continue to operate on a cost recovery basis.
- Promote sustainability in development and other associated land use changes in the Nottawasaga Watershed.
- Review and investigate the increase of unauthorized fill in NVCA's regulated areas.

## Service Pressures

- Program operates on a cost recovery basis.
- Increasing growth, development and associated land use changes in the Nottawasaga Watershed.
- Increase in unauthorized fill violations.
- Understand and implement the amendments to the *Conservation Authorities Act* regarding permit processes and how that will impact service delivery.



# FLOOD MANAGEMENT

**\$353K / 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. NVCA also helps maintain the federal-provincial surface water monitoring network



## 2022 Achievements

- Monitored flood and low water conditions.
- Inspected and operated flood and erosion control structures, including the Utopia, New Lowell and Tottenham Dams as well as the Pretty River Dike.
- Monitored ice conditions throughout the watershed.
- Ongoing 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 vegetation removal in Section 5 of Pretty River Dike, as part of the Pretty River Dike Maintenance Project.
- Launched four NVCA Stormwater Management Technical Work Group meetings
- Continued to maintain the City of Barrie's rain gauge network.
- Worked with the Information Services & Technology Team to initiate a watershed erosion hazard assessment project.
- Reviewed site-specific flood hazard assessment studies to include into NVCA's regulations mapping
- Initiated the development of the Natural Hazard Strategy to help update NVCA's hydrology and hydraulic modelling.
- Updated the Low Water Response Contingency Plan
- Initiated the development of an Ice Management Plan for the Nottawasaga Watershed.
- Enhanced data management for flood data including snow survey field work.

## 2023 Focus

- Update the watershed hydrology and initiate transfer of flow regime to NVCA's flood hazard models.
- Initiate the tree management portion of the Pretty River Dike maintenance project.
- Conduct the Pretty River Dike safety study.
- Continue to implement recommendations from New Lowell and Tottenham Dam safety studies.
- Continue to enhance data management for flood data including.

## 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 in Georgian Bay.
- Time requirements to build new models and analyze large volumes of data.



# WATERSHED SCIENCE

**\$480K/ 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.

### 2022 Achievement

- Ongoing work to complete 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 205/18 of the *Safe Drinking Water Act* for the Township of Clearview and the Township of Springwater.
- Completed technical work in support of the new Director Technical Rules related to impervious mapping.
- Ongoing efforts in making the Nottawasaga Valley Source Protection Area Assessment Report compliant to the *Accessibility for Ontarians with Disabilities Act*.

### 2023 Focus

- Complete the outstanding 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 205/18 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 but there is uncertainty about continued funding.

## **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.

### **2022 Achievements**

- Completed the wetland loss analysis from pre-settlement to present times.
- Completed the NVCA land use layer.
- Initiated the development of a watershed-scale natural heritage system.
- Continued to update wetland inventories.
- Complete analysis in support of Conservation Ontario's 2023 watershed report card.
- Continued to monitor the Nottawasaga Watershed.
- Completed externally funded projects with the Town of Shelburne and the Town of Collingwood.
- Completed the 2022-2025 NVCA Climate Change Strategy.

### **2023 focus:**

- Lead the development of the watershed-based resource management strategy as required under the *Conservation Authorities Act*
- Release the Conservation Ontario watershed report card
- Continue to monitor the Nottawasaga Watershed.
- Develop a watershed-scale natural heritage system.
- Continue to update wetland inventories.

### **Service Pressures**

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





# EDUCATION

**\$234K / 4.8 FTEs**

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

## **2022 Achievements**

- While experiencing multiple challenges to the program including maintaining experienced staff, the need to create more online programming that is engaging during Covid-19, we still connected with 5700 youth by the end of August.
- Nature programming for our youngest learners ran its second round in the spring with enrollment increasing with its popularity. A grant from the Retired Teachers of Ontario allowed us to put in a mud kitchen which is a huge hit for all ages.
- In-person summer camp 489 campers, which includes 13 Ukrainian Newcomers to Canada. Further, we saw 162 external visiting campers.
- Water quality workshop for SCDSB teachers online and in-person.

## **2022 Focus**

- Forest School Program with Forest School Practitioner Course completed
- Continuation of outreach microplastics programming in Collingwood, with the addition of Wasaga Beach
- Additional partnership with Georgian Bay Forever to teach community groups about microplastics and the Yellow Fish Road Program

## **Service Pressures**

- Geographic expanse of watershed service area has resource implications.
- School board funding uncertainties and potential teacher job action.
- Sharing the educational building with other departments limits current service capacity.



# CONSERVATION LANDS

**\$631K / 6.25 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.



## 2022 Achievements

- Improved accessible infrastructure in the Tiffin Conservation Area.
- Initiated the development of conservation area strategy and land inventory as per *Conservation Authority Act* requirements.
- Increased training for NVCA Provincial Offences Officers and undertook Section 28 and 29 enforcement.
- Installed new electric vehicle chargers at the Tiffin Conservation Area.
- Improved visitor experience in Petun and Glencairn Conservation Areas.
- Ensured continued safe access to NVCA conservation areas.
- Provided interdepartmental support for NVCA programs, including Forestry, Stewardship and Flood.
- Continued hazard tree removals resulting from Emerald Ash Borer infestation.
- Restructure of the Friends of Historic Fort Willow volunteer group.
- Implemented new remote parking payment program.
- Return to in-person public engagement events.

## 2023 Focus

- Develop property management plan to incorporate all of NVCA's "Reserve Properties"
- Develop the Edenvale Conservation Area Management Plan in partnership with the Township of Springwater.
- Increase focus on external fundraising through public engagement opportunities.
- Improve visitor experience, such as developing a parking lot at the Nottawasaga Bluffs Conservation Area.

## Service Pressures

- Balance infrastructure development in NVCA's properties with conservation values.
- Declining visitor numbers and fees at NVCA conservation areas following two consecutive years of extensive use.
- Proximity to large urban centers increases guest expectations on facilities in 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.



# 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**

**\$421K / 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.

### **2022 Achievements**

- Planted 115,050 trees on 23 properties across the watershed, creating 61 hectares of new forest including 2.84 km of windbreaks, and protected 16.60 km of streams 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 \$300,845.
- Managed over 700 hectares of forest.
- Worked with 35 landowners to develop their Managed Forest Plans.

### **2023 Focus**

- Plant approximately 130,000 trees on properties throughout the watershed.
- Create more than 69 hectares of new forest including 3 km of windbreaks, and protect 3 km of streams with permanent tree cover.
- Assist landowners in managing over 400 hectares of forest to maintain forest health.
- Hold the 32nd Annual Arbor Day Tree Sale, helping landowners to create their own forests.
- Begin securing agreements for the 2024 tree planting. Continue to diversify possible sources of funding.

### **Service Pressures**

- Rapid urbanization and competing land use interests impact available land for tree planting.
- Accelerating ash tree mortality due to the expansion of the Emerald Ash Borer will greatly impact both rural and urban forest cover throughout the watershed.
- The threat of Oak Wilt endangering red oak. At the moment red oak is a common, readily available species for tree planting. Bur oak is a resilient substitute but will require effort in seed collection.

# Watershed Stewardship and Restoration

**\$696K / 4 FTEs**

The Watershed Stewardship and Restoration Program aims to restore river and wetland habitats and support agricultural and urban water quality improvement projects. This enhances the ecological health of the watershed and provides enhanced economic and recreational opportunities.

## 2022 Achievements

- Planted native grasslands.
- Implemented of a wide range of water quality and habitat improvement projects throughout the watershed by working with external partners, private landowners and volunteers.
- Planted approximately 8,000 trees in the Spring of 2022.
- Collaborated with the Friends of the Mad River to develop a restoration plan, and initiated a river morphology study for the Mad River in the Township of Clearview.
- Released a documentary highlighting the recreational and economic benefits of healthy cold-water fisheries in the Nottawasaga watershed.
- Collaborated partners to complete brook trout distribution studies in the Town of Mono and Township of Springwater.

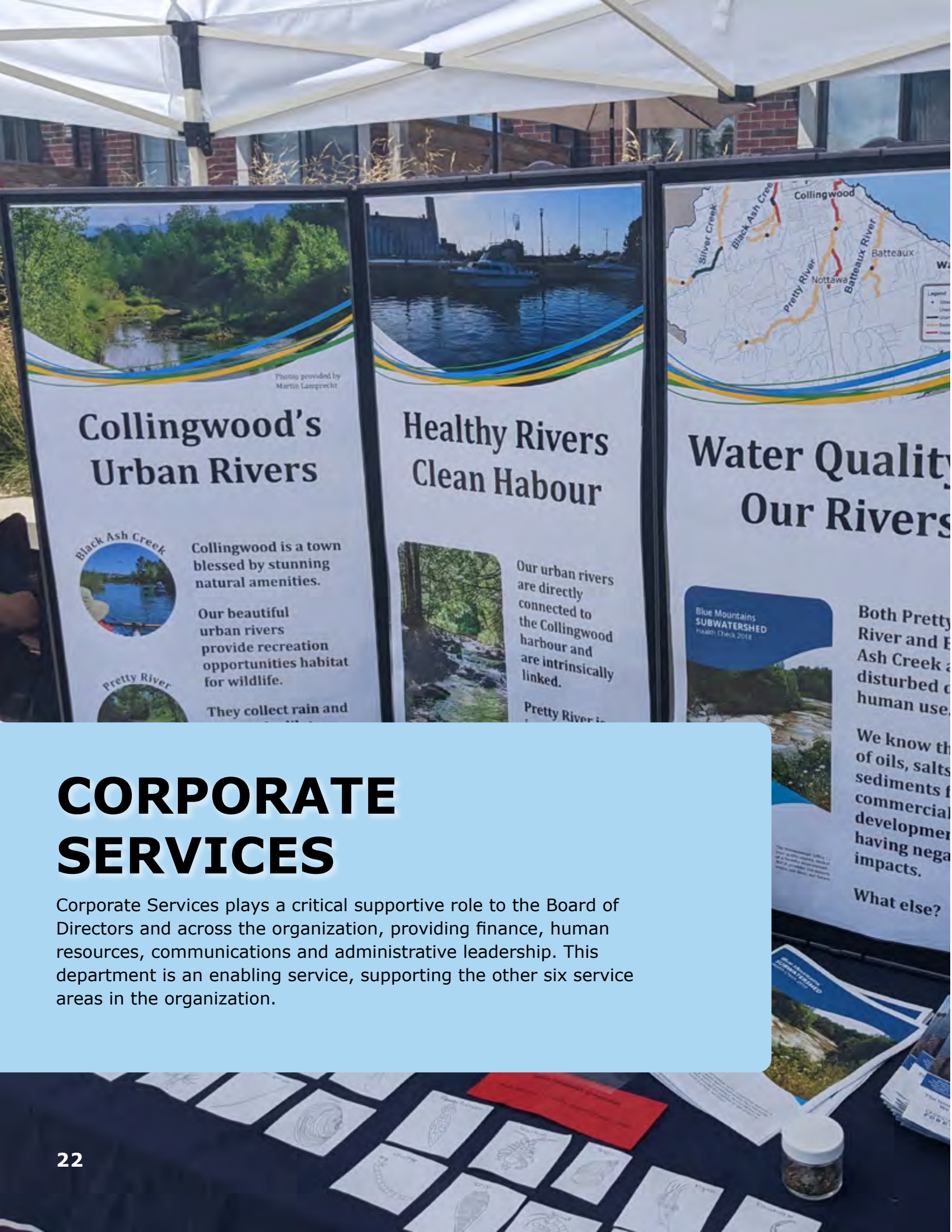
## 2023 Focus

- Continue to implement a wide range of water quality and habitat improvement projects throughout the watershed by engaging external partners, private landowner and volunteers.
- Collect background environmental data and develop a trout habitat and water quality improvement plan for the Mad River in the Township of Clearview.
- Address urbanization pressures by developing a phosphorus offsetting program for Willow Creek in the Township of Oro-Medonte and the Township Springwater as well as Little Lake in the City of Barrie.
- Continue to develop plans and begin implementation of wetland habitat compensation projects.
- Collaborate with municipalities and community groups in the Town of Collingwood and the Town of Wasaga Beach to remove invasive Phragmites

## Service Pressures

- Accessing funding for project costs, permanent staff and contract staff. The program generates approximately three quarters of its budget through external revenue sources.
- Balancing field work, developing and 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.





## Collingwood's Urban Rivers

Photos provided by Martin Langreicht



Collingwood is a town blessed by stunning natural amenities.

Our beautiful urban rivers provide recreation opportunities habitat for wildlife.

They collect rain and

## Healthy Rivers Clean Harbour



Our urban rivers are directly connected to the Collingwood harbour and are intrinsically linked.

Pretty River is

## Water Quality Our Rivers



Both Pretty River and Black Ash Creek are disturbed by human use.

We know that runoff of oils, salts and sediments from commercial development is having negative impacts.

What else?

# 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 Communications**

**\$127K / 1.3 FTE**

Corporate Communications provides strategic advice and services to inform, inspire, influence and motivate municipal, provincial, federal partners and watershed residents communities to support the work of NVCA.

### ***2022 Achievements***

- Completed and distributed the Restoring the Nottawasaga River documentary
- Revamped stewardship and forestry section of the website
- Increased newsletter subscription numbers
- Improved social media presence through regular posting postings
- Assisted Regulations department in reducing the number of inquiries by improving language on website and heavier presence in community
- Designed graphics, brochures, reports and other materials to help promote programs
- Expanded video and photo library

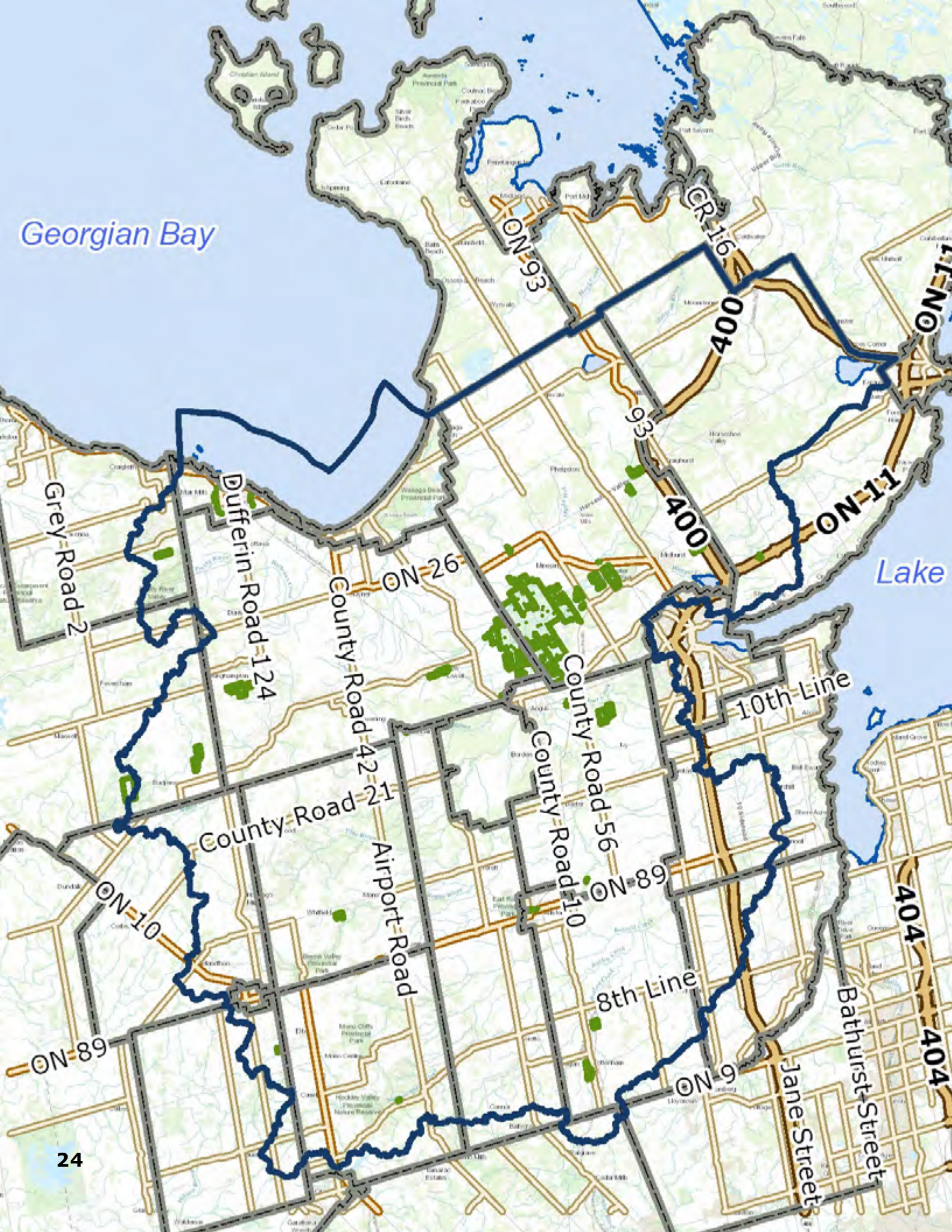
### ***2023 Focus***

- Continue to grow social media engagement and outreach.
- Continue to revamp more sections of NVCA's website.
- Continue to ensure AODA compliance with provincial standards.
- Improve NVCA's visibility throughout the watershed

### ***Service Pressures***

- Effectively reaching audiences in a watershed with changing population while keeping in mind the geographic, demographic and socio-economic span and diversity of the watershed.
- Rapid changes to how watershed residents consume information.
- Resources to be more visible in the watershed

Georgian Bay



Lake

24



## **Information Services & Technology**

**\$382K / 3.7 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.

### ***2022 Achievements***

- Continued to develop of a Watershed Science data management platform that provides viewing, uploading and querying capabilities linked to the GIS system.
- Developed an open data strategy.
- Added new survey equipment and technology.
- Continue to carry out IT Infrastructure replacement strategy including large format equipment.
- Developed an application to manage critical flood infrastructure.
- Prepared data for Regulation mapping and schedule updates.

### ***2023 Focus***

- Review of software and applications supporting NVCA service delivery including GIS mapping tools and resources.
- Core data management including water features update.
- Enhance planning and application processing applications.
- Replace IT infrastructure 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**

**\$368K / 3.6 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.

### ***2022 Achievements***

- Processed Freedom of Information requests.
- Continued the paperless initiative to reduce our environmental impact.
- Produced clean 2021 Audit.
- Initiated creation of a new budget template to match new Provincial regulations.

### ***2023 Focus***

- Continue finalizing new budget template to match new Provincial regulations.
- Ensure clean 2022 audit.

### ***Service Pressures***

- Budget pressures to minimize 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**

**\$72K / 0.55 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.

### ***2022 Achievements***

- Followed human resources management best practices through connections with other conservation authorities and municipalities.
- Ensured the Health & Safety of NVCA employees during the COVID-19 pandemic and return to the office.
- Updated or created employment policies as required.
- Completed recruitment as required.

### ***2023 Focus***

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

### ***Service Pressures***

- Finding talent to replace positions in current labour market.
- Responding to matters resulting from the Provincial government's review of municipalities and conservation authorities.



## **Governance**

**\$345K / 2.35 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.

The Governance Team 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.

### ***2022 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.
- Created a model to allow some Board meetings to continue virtually and some in person to continue the efficiency and cost savings utilized through virtual meetings.

### ***2023 Focus***

- Completing Memorandums of Understanding with member municipalities related to the new Provincial legislation.
- Continue to 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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Conservation  
ONTARIO