

Nottawasaga Valley Conservation Authority

2021 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

2021 represents the NVCA's 61st anniversary of providing services to our watershed. Since 1960, we have continued to work with our municipal partners to provide programs and services that bring to life our vision of a vibrant watershed supporting 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.

The 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.

WATERSHED SCIENCE

\$464K
4.0 FTEs

PLANNING & DEVELOPMENT

\$1.39M
11.9 FTEs

EDUCATION

\$185K
2.0 FTEs

CONSERVATION LANDS

\$523K
4.8 FTEs

RESTORATION SERVICES

\$947K
4.2 FTEs

CORPORATE SERVICES

\$1.2M
10.7 FTEs

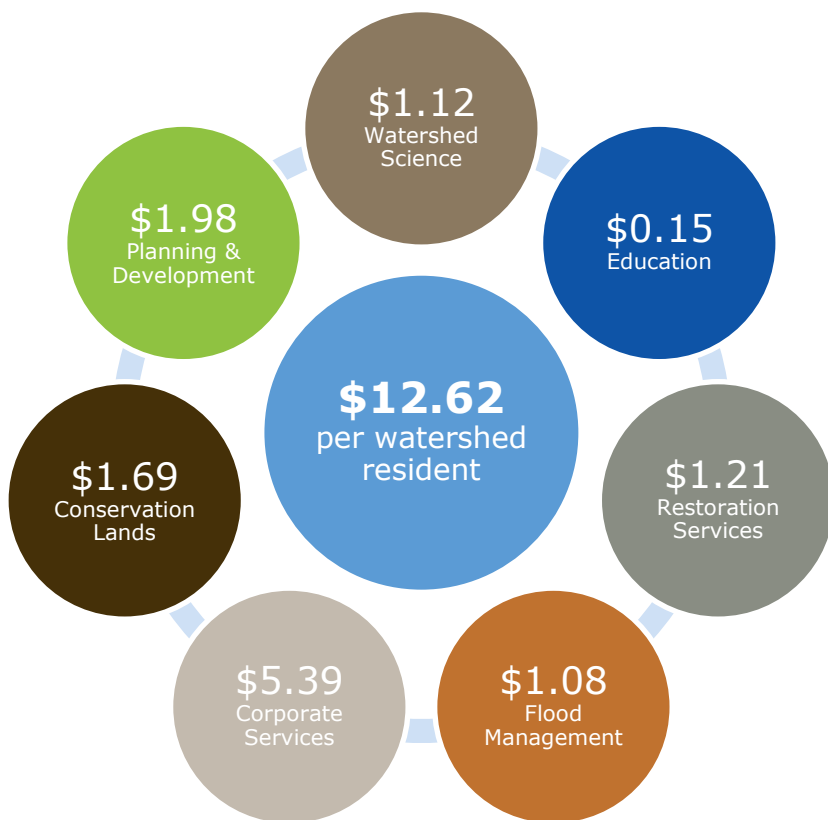
FLOOD MANAGEMENT

\$318K
2.5 FTEs

FUNDING CONSERVATION

NVCA’s 2021 budget is \$4,949,422, which includes a total levy contribution of \$2,564,825. This corresponds to \$12.62 per watershed resident, which is the same as 2020. The budget includes almost \$500K in leveraged funding. When combined with fee for service revenues, 49% 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, NVCA remains at only \$12.62/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.



Program Name	Cost/Resident
Drinking Source Water Protection	\$0
Watershed Monitoring	\$1.12
Education	\$0.15
Forestry Services	\$0.35
Watershed Stewardship & Restoration	\$0.86
Flood Management	\$1.08
Corporate Communications	\$0.49
GIS & Information Management	\$1.32
Financial Management	\$1.60
Governance	\$1.56
Human Resources	\$0.42
Conservation Lands	\$1.69
Planning & Development	\$1.98

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.



WATERSHED SCIENCE

\$464K / 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. It also includes Risk Management Official duties as prescribed by agreements with municipalities.

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.

2020 Achievements

- Initiated review and amendments to the source protection plan, as directed by Ministerial Order.
- Undertook the development of Risk Management Official work for the nine delegated municipalities.
- Completed jurisdictional review of Dense Non Aqueous Phase Liquids and the Application of Road Salt.
- Development of guidance material to support septic inspections.
- Reviewed policy considerations for Significant Groundwater Recharge Areas.
- Completed amendments to the source protection plan to include new drinking water systems, as required by Regulation 205 of the *Safe Drinking Water Act*.

2021 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.



Watershed Monitoring

The Watershed Monitoring program monitors the natural resources in the Nottawasaga Valley 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.

2020 Achievements

- On-going development of the integrated watershed monitoring data management platform.
- Updated the watershed science component of the website.
- Completed a Watershed Monitoring Strategy.
- Completed a broad desktop assessment of evaluated wetlands and unevaluated wetlands on a watershed/subwatershed basis.
- Completed the report documenting NVCA wetland mapping history including protocol for future update efforts.
- Completed natural heritage discussion paper outlining future direction for this program component.

2021 Focus

- Finish the integrated watershed monitoring data management platform.
- Integrate interactive analyzed watershed science data into the website.
- Continue to update wetland inventories.
- Initiate the development of a watershed-scale Natural Heritage System.
- Complete a natural capital asset inventory.
- Update key hydrological feature mapping.

Service Pressures

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



EDUCATION

\$185K / 2.0 FTEs

The Environmental Education program educates the members of the watershed on the interconnectedness of human and natural infrastructure. The education team works to communicate the importance of the collective work as a conservation authority as it relates to ecosystem resilience, biodiversity, and water quality. The goal is to raise awareness, share knowledge, create understanding and inspire action that leads to real and lasting change.

2020 Achievements

- Unfortunately, due to the COVID-19 pandemic, our Education program shut down in mid-March and is not anticipated to restart until late-fall.

2021 Focus

- Determine how to best continue delivering educational programs during pandemic isolation.
- Once possible, deliver educational programs for school groups on-site and through outreach for students in kindergarten to grade 12.
- Run another successful Camp Tiffin, and offering off-site camp programming.
- Build upon past public programs to evolve new educational programs to stay progressive with popular culture and needed environmental awareness.

Service Pressures

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



RESTORATION SERVICES

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

Forestry Services

\$351K / 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. The NVCA is now the only agency providing this service to watershed residents.

2020 Achievements

- Planted 107,850 trees on 27 properties across the watershed creating 134 acres of new forest.
- Received financial contributions (outside of levy) from provincial and municipal governments, Forests Ontario, corporations and private landowners totaling \$272,222.
- Managed over 1,000 acres of forest; worked with 40 landowners to develop their Managed Forest Plans.

2021 Focus

- Plant approximately 130,000 trees on properties throughout the watershed.
- Create more than 170 acres of new forest cover.

- Assist landowners in managing over 405 hectares (over 1,000 acres) of forest to maintain forest health.
- Hold the 31st Annual Arbour Day Tree Sales, helping landowners to create their own forests.
- Begin securing agreements for the 2022 tree planting.

Service Pressures

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



Watershed Stewardship and Restoration

\$596K / 3.0 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.

2020 Achievements

- Provided water quality and habitat improvement incorporating landowners and volunteers, through delivery Healthy Waters Grant Incentive Program.
- Continued to maintain canoe route and improve fish habitat in the Mad River.
- Improved habitat for trout/northern brook lamprey and enhanced water quality in the upper Nottawasaga River by stabilizing 300 m of erosive stream bank, installing 300 m of woody instream habitat and 1,000 m of livestock exclusion fencing and creating 2,000m² of restored floodplain habitat. This work was completed with a wide range of funding partners.
- Improved trout habitat and water quality in Black Ash Creek and reduced flooding potential by removing the Petun Dam and restoring 130 m of healthy, dynamic natural stream channel and escarpment valley
- Created 0.5 ha floodplain wetland on Beeton Creek through installation of a rock spillway at the Ice Control Structure.

2021 Focus

- Implement new water quality and habitat improvement projects through delivery of Healthy Waters Grant Incentive Program.
- Improve trout habitat and water quality in the Upper Nottawasaga River and Sheldon Creek by stabilizing 300 m of erosive stream bank, installing 300 m of woody instream habitat and 1,000 m of livestock exclusion fencing and creating 2,000m² of restored floodplain habitat.
- Develop new high priority dam removal project to take advantage of the water quality and fisheries benefits.
- Collect background data and develop a trout habitat and water quality improvement plan for the Pine River.
- Investigate opportunities for developing a phosphorus offsetting program to address urbanization pressures in subwatersheds.

Service Pressures

- Accessing funding for project costs as 3/4 of program budget is through external revenue sources.
- Corporate sponsors have stepped forward to fill the funding gap but challenges exist with maintaining long-term support from this sector.



FLOOD MANAGEMENT

\$318K / 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.

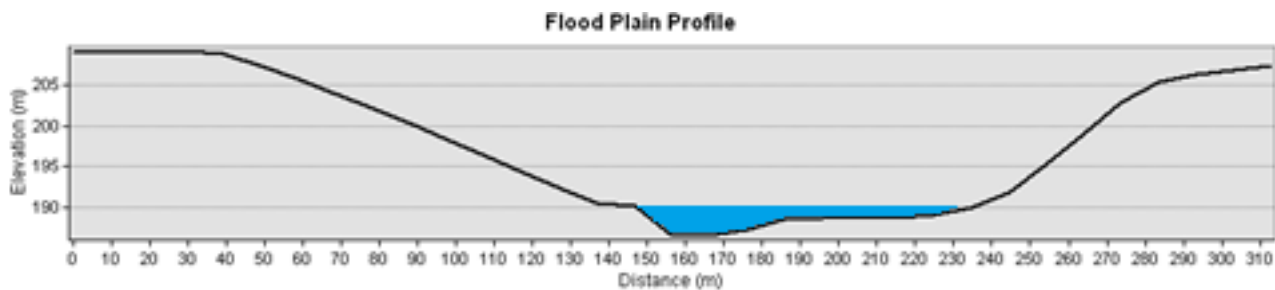


Figure 1: Cross section profile of a stream

2020 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. The Tottenham Dam Safety Review was completed.
- 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.

2021 Focus

- Update the watershed hydrology & transfer flow regime to the generic regulation model.
- Prepare and implement Pretty River Dyke Maintenance Plan.
- Conduct 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

\$1.39M / 11.9 FTEs

Planning and Development 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*.

2020 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*.
- Streamlined the engineering technical review procedures of applications.
- Completed the Emergency Permit Procedure Guideline.
- Finalized two National Disaster Mitigation Program (NDMP) Risk Assessment projects supported through Federal and municipal funding, including updated flood lines for the Town of Wasaga Beach.

2021 Focus

- Update Planning and Regulation Guidelines.
- Finalize the Ecological Offsetting Policy.
- Update the development review fees.
- Continue looking for opportunities with municipalities and partners to streamline processes for the review of applications.

- Continue to use and provide updates to municipal service agreements (MOU's) 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 on 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

\$523K / 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. The NVCA manages 5,260 hectares of conservation land, including the internationally significant Minesing Wetlands.

2020 Achievements

- Safe reopening of NVCA conservation areas after temporary closures, including thorough property and hazard tree inspections and enforcement during closure.
- Working with local community partners on conservation lands projects including the completion of the Utopia Conservation Area accessible trail with the Friends of Utopia Gristmill and Park.
- Surveyed of hunting program participants and development of recommendations based on user feedback.
- Completion of the 2020-2030 Land Securement Strategy.
- Property monitoring and Phragmites control within Minesing Wetlands with assistance from Nature Conservancy of Canada.
- Provide interdepartmental support for NVCA programs, including Forestry, Stewardship and Flood.
- Collaborating with Friends of the Historic Fort Willow on completion of infrastructure projects and development of the Fort Willow Master Plan.
- Working with events and groups to safely revise or reschedule over 60 bookings and events.
- Securement of funds to enhance conservation area signage throughout the watershed.

2021 Focus

- Ensure continued safe access to NVCA conservation areas and events.
- Maintain property leases with local partners and municipalities to provide agricultural and recreational opportunities within the watershed.
- Implement Land Securement Strategy.
- Conduct recreational assessment and review on at least one NVCA conservation area.
- Implement recommendations from the hunting program review.

Service Pressures

- Opportunities to improve and enhance recreational and infrastructure options on our properties are limited due to resources.
- Potential liability associated with providing recreational opportunities is increasing.
- 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



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

\$99K / 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.

2020 Achievements

- Continued to grow social media outreach and newsletter subscribers, with focus on NVCA programs and events. Created a science section as part of the monthly newsletter.
- Revamped the Regulations section of the website to help watershed residents have a better understanding of NVCA's permitting process.
- Created a monthly internal staff newsletter in addition to Communication Committee minutes.
- Created graphics, brochures and other materials to help promote programs.
- Continue to revamp more sections of NVCA's website.
- Continue to ensure AODA compliance with provincial standards.

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.

2021 Focus

- Continue to grow social media outreach and newsletter subscribers.



Geographic Information Systems & Information Management

\$268K / 2.7 FTEs

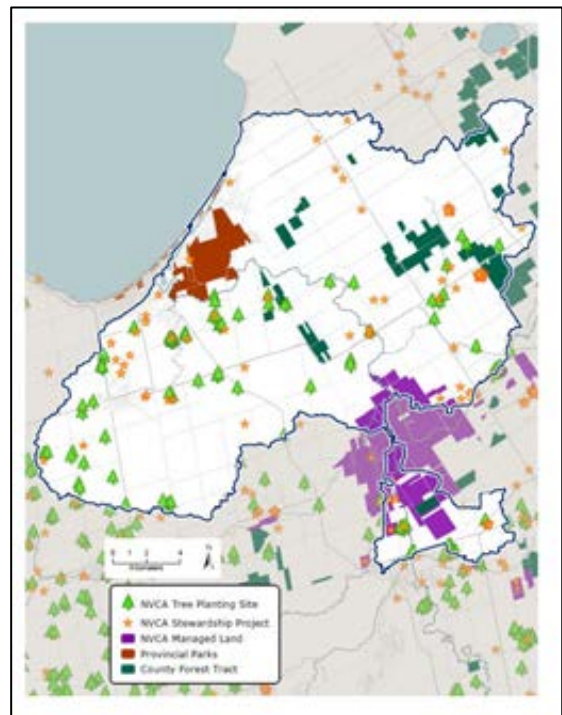
Geographic Information Systems (GIS) and Information Management is responsible for providing data integrity while managing a secure, reliable and integrated information technology environment that aligns our business and strategic goals.

2020 Achievements

- Developed and implemented document management applications for projects and enhancement of planning database
- IT Infrastructure replacement including SAN Server and data migration
- Migrated NVCA email to Microsoft 365 platform
- Supported flood hazard mapping program through risk assessment projects
- Developed a BETA version of public facing GIS mapping tools for NVCA data and applications

2021 Focus

- Continue development of a Watershed Science data management platform providing viewing, upload and querying capabilities linked to the GIS system.
- Core data management and update schedule including implementing a Meta Data standard, provincial and municipal communication, and file services.
- Implementing a Telephony solution
- IT infrastructure replacement as per the Asset Management Strategy
- Linking workflows and permitting to spatial data.



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.



Photo credit: Trevor Weeks

Financial Management

\$325K / 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.

2020 Achievements

- Implemented new Purchase Order System.
- Began implementation of Electronic Fund Transfer (EFT system).
- Processed Freedom of Information requests.
- Continued the paperless initiative to reduce our environmental impact.

2021 Focus

- Complete implementation EFT system.

- Investigate software to improve budgeting processes.

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.





Governance

\$299K / 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 our mission. Governance supports Board Member decision making and leadership by promoting and facilitating the participation of municipal members on the Board of Directors. Authority staff provide timely professional support, information and recommendations, through meetings with members of the Board, who guide the NVCA into the future.

2020 Achievements

- Efficiently and effectively managed water resources in the NVCA watershed for current and future generations through essential and integrated programs.
- Updated Administrative Bylaws to allow for continued Board meetings during pandemic and implemented Board management software to increase efficiency of Board.
- 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, municipalities and provincial and federal governments, to ensure the implementation of programs and services.

2021 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

- Possible regulatory and mandated changes to conservation authority programs and services.



Human Resources Management

\$86K / 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.

2020 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.

2021 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.





Nottawasaga Valley
Conservation Authority



The Nottawasaga Valley Conservation Authority (NVCA) is your public agency dedicated to the preservation of a healthy environment. As your partner, the NVCA provides the expertise to help protect our water, our land, our future.

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