



Nottawasaga Valley
Conservation Authority



Moving Forward for Conservation

2021 - 2025 BUSINESS PLAN

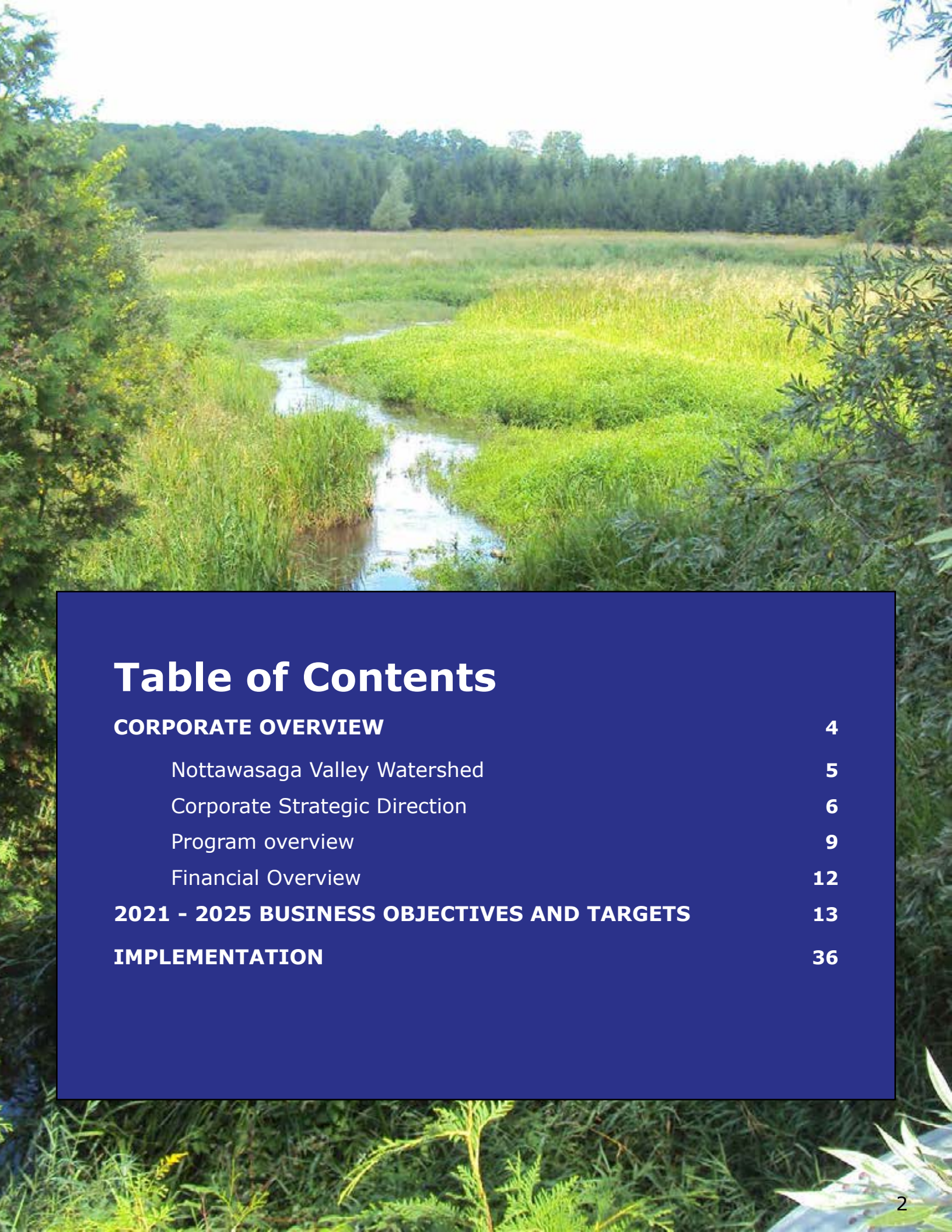


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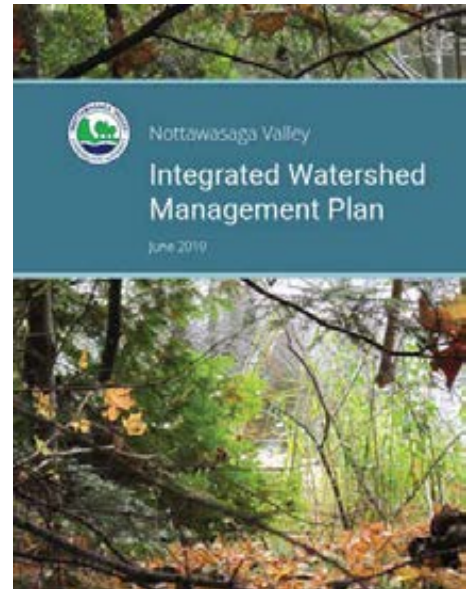
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Introduction

The Nottawasaga Valley Conservation Authority (NVCA), established in 1960, is a public agency responsible for managing natural resources within the Nottawasaga Valley watershed under the *Conservation Authorities Act*.

Celebrating the 60th anniversary, NVCA has recently completed the Nottawasaga Valley Integrated Watershed Management Plan (2019) and the 2020-2025 Strategic Plan to help guide the organization forward for the short (5-year) and long term (20-year) horizons. Collectively, these documents emphasize the value of collaboration and partnership, while recognizing organizational resilience in the face of political and legislative changes as well impacts of a changing climate.

Driving corporate direction forward, the 2021-2025 NVCA Business Plan outlines the defineable and measurable objectives and associated targets compiled from the aforementioned documents and through NVCA staff consultation. This Business Plan will be used to guide the annual budget planning process.





CORPORATE OVERVIEW

Nottawasaga Valley Watershed

The Nottawasaga Valley watershed is situated in south central Ontario and drains northward to the Nottawasaga Bay. It is approximately 3,700 km² and jurisdictionally includes the Nottawasaga River watershed, Blue Mountain watersheds, and a small portion of the Severn Sound watershed. It extends across the counties of Simcoe, Dufferin, and Grey and includes 18 lower-tier municipalities. Approximately 197,800 people live in the Nottawasaga watershed and rely on the critical water and natural resources it provides.

The Nottawasaga watershed is defined by its landscape that is best described as a three-sided, bowl-like formation. The 'rim' or topographic highs of the bowl are defined by physiographic features, including the Niagara Escarpment and the flatter Dundalk Till Plain in the west, the Oak Ridges Moraine in the south, and the Simcoe Uplands and Oro Moraine in the east. These headwater areas feature extensive forest cover and forest interiors. The centre of the bowl includes the flat Simcoe Lowlands, and is home to the Minesing Wetlands, one of the largest intact wetland complexes in southern Ontario. The Nottawasaga Bay is the watershed's northern extent which includes extensive natural beaches and dunes and rare Great Lakes coastal wetlands.

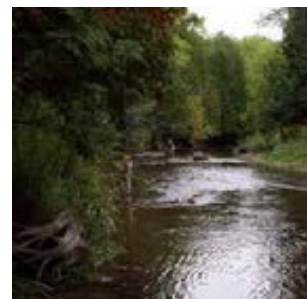
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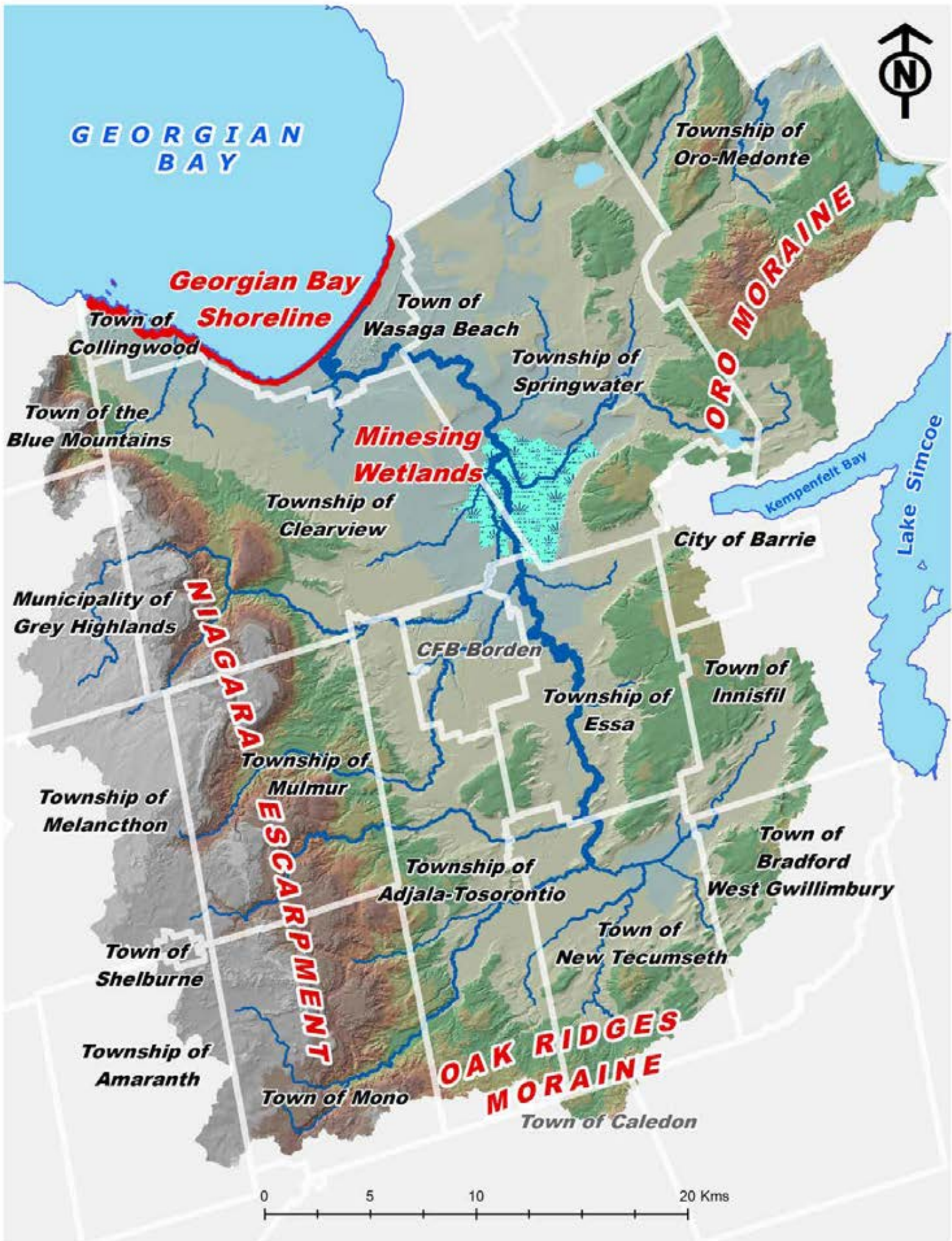


18
municipalities



197,800
residents





Corporate Strategic Direction

NVCA's vision and mission to guide the organization is as follows:

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.

Mission

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

Further, corporate direction for program delivery is driven by two key documents: the Integrated Watershed Management Plan and the 2020 - 2025 NVCA Strategic Plan.

Integrated Watershed Management

Integrated watershed management is the process of managing human activities and natural resources on a watershed basis by taking into account social, economic and environmental issues, as well as community interests in order to manage natural resources sustainably.

The recently completed 20 year horizon Integrated Watershed Management Plan provides a guiding framework on current and future policy decisions related to watershed planning while incorporating water resource and natural hazard management in addition to climate change, natural heritage, and resilience planning.

Through existing partnerships and new collaborations, the framework outlined in the plan will guide watershed management efforts to maintain and enhance the watershed's natural heritage resources. The issues and strategies addressed in the Integrated Watershed Management Plan are: water quality and quantity; flood and erosion management; resilient biodiversity and habitats; sustainable economic and recreation opportunities; improved quality of life and neighborhood desirability; and the ability of the watershed to adapt to stressors such as climate change and urban growth. The Integrated Watershed Management Plan outlines monitoring requirements to track the implementation progress.



2020-2025 NVCA Strategic Plan

The 2020-2025 NVCA Strategic Plan embodies the integrated watershed management approach through four core strategic areas and associated goals to advance NVCA's over the next five years which consist of:

Enhance business excellence through governance and technology creating a well-managed organization that provides transparency and efficient operations.

Goal: Provide effective communication with our partners, residents, and stakeholders that enhances transparency on decisions and actions which benefit the watershed and ensure NVCA programs and services are maintained for watershed health.

Promote resiliency and capacity in the face of dynamic conditions with the watershed.

Goal: Encourage all watershed stakeholders to work collaboratively to attain a sustainable, healthy, resilient watershed that benefits communities, economies, natural resource industries, and the environment.

Enhance watershed knowledge to support decision making for the improvement and maintenance of watershed health.

Goal: Improve scientific understanding of environmental issues within the watershed.

Inspire conservation through outdoor experiences and education.

Goal: Foster awareness and appreciation of the watershed's natural features through outdoor experiences, opportunities, and education.



Program Overview

NVCA has a current complement of 50 staff members under the direction of the Chief Administrative Officer, who in turn reports to an 18 member Board of Directors.

Organizationally, NVCA is divided into three departments: Corporate Services, Watershed Management Services, and Conservation Services.

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 service areas in the organization. The key program areas consist of: Corporate Communications, Geographic Information Systems & Information Management, Financial Management, Governance, and Human Resources Management.

Watershed Management Services

Watershed Management Services is an adaptive department, working with municipal partners and stakeholders, to prevent the loss of life and prevent property damage from natural hazards while also ensuring safe drinking water and a healthy watershed. Key program areas consist of: Planning and Development, Watershed Science, and Flood Management.

Conservation Services

Conservation Services works together with member municipalities, watershed residents and funding partners to educate on the value of protecting and restoring the watershed lands and waters through specific programs including Environmental Education, Forestry, Stewardship/Restoration and Conservation Lands.



Current Legislative Environment

Complementing the integrated watershed management approach, NVCA staff rely on strong interdepartmental integration, cooperation and partnership to ensure efficiencies and accountability throughout the organization. This integration is further organizationally reflected in the proposed changes to the *Conservation Authorities Act* in 2019 that subdivides program delivery into mandatory, municipal and other programs and services.

Bill 108, *More Homes, More Choice Act, 2019* proposes that programs and services prescribed by regulation (mandatory) will include the following:

- i) Programs and services related to the risk of natural hazards.
- ii) Programs and services related to the conservation and management of lands owned or controlled by the authority, including any interests in land registered on title.
- iii) Programs and services related to the authority's duties, functions and responsibilities as a source protection authority under the Clean Water Act, 2006.
- iv) Programs and services related to the authority's duties, functions and responsibilities under an Act prescribed by the regulations.
- v) Program or service not identified (time-limited; within 1 year of transition period)

Programs outside the mandatory designation are considered as a foundational watershed management activity (see next page) which supports the mandatory program areas as long as member municipalities enter into a Memorandum of Understanding for the payment and delivery of the program. Regulations around the *Conservation Authorities Act* have not been formalized at the time of writing this business plan.

FOUNDATIONAL WATERSHED MANAGEMENT ACTIVITIES

Support Effective Delivery of:

Natural Hazards Management

Drinking Water Source Protection

Conservation and Management of
Conservation Lands



Watershed-scale data collection,
management & modelling used to
track conditions, identify problems
and challenges



Watershed studies, plans and
strategies that inform and identify
watershed actions



Water and land-based
stewardship, restoration &
rehabilitation activities targeted to
stressors



Communication, outreach and
education activities to inform
residents

Financial Overview

The annual budget process provides the Board Members with the opportunity to review each program area and its revenues and expenditures. This helps to ensure that programs are effective and relevant to NVCA's mandate, goals, and objectives and in line with the strategic plan and watershed residents.

Revenues are sought from a variety of sources: grants from federal and provincial agencies, municipal levies, and fees for service.

Staff seek preliminary guidance from the Board regarding budget parameters for the upcoming year on an annual basis. Based on this advice, staff prepare a draft budget for Board consideration in the fall for the following year. The draft budget is circulated to board members and municipalities for comment for a minimum of 30 days.

With municipal input, the Board reviews and approves the final budget, generally at the end of Q4 to early Q1, with a weighted vote (based on current value assessment apportionment) as prescribed by Ontario Regulation 139/06.

With the budget approval, staff prepare quarterly Budget Status Reports for Board review. At year end, staff also prepare a Draft Financial Statement in preparation for the annual audit. The Audited Financial Statements are approved by the Board of Directors, including a Statement of Continuity of Reserves. NVCA targets to complete year end on budget or with a small surplus which is allocated to reserves through a Board resolution.





**2021 - 2025
BUSINESS
OBJECTIVES
AND TARGETS**

Eleven objectives have been identified for the 2021 – 2025 business period for NVCA. These objectives were developed by prioritizing strategic direction from the Integrated Watershed Management Plan in combination with objectives identified by each program area. Targets were developed to indicate the success for each objective.

The collaboration of program areas is vital to ensure the successful completion of the business plan. Most targets have been assigned a lead program area, with supporting programs identified as additional resources.



Objective 1

Integrate the delivery of NVCA’s Climate Change Action Plan and Strategy and subwatershed planning to aid key program delivery.

Target 1: Implement the actions generated from NVCA’s Climate Change Action Plan and Strategy in collaboration with municipal partners and other watershed stakeholders.

- A. Program area(s): Lead- Management Team; Resources- N/A.
- B. Target outcomes:
- Implementation and tracking of the climate change study recommendations.
 - Review of recommendations through an adaptive management process and update accordingly.
 - Summarize updated monitoring data to enhance the temporal and spatial understanding of climate change trends during the life of the Business Plan.
- C. Performance indicators:
- Number of recommendations completed.
 - Release of the revised/updated Climate Change strategy.

Target 2: Development of subwatershed management plans through collaboration between NVCA’s, member municipalities, and other stakeholder groups to inform natural heritage and natural hazard management, servicing, and urban growth needs as part of municipal comprehensive reviews.

- A. Program area(s): Lead-Watershed Management Services; Resources-Planning, Watershed Science, Flood Management, Stewardship, and Forestry.
- B. Target outcomes:
- In concert with member municipalities and satisfying the requirements outlined in the Growth Plan, Greenbelt Plan, Oak Ridges Moraine Conservation Plan, and Niagara Escarpment Plan; complete targeted subwatershed plans.
 - Direct watershed monitoring activities to satisfy the endorsed subwatershed plan results.
 - Direct NVCA Conservation Services activities to satisfy the endorsed subwatershed plan results.
- C. Performance indicators:
- Number of subwatershed plans completed and implemented.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Implement the NVCA's Climate Change Action Plan and Strategy.	ongoing					
Target 2: Development of subwatershed management plans.	ongoing					

Objective 2

Update core NVCA guidelines and associated mapping.

Target 1: Update internal guidelines and policy documents.

- A. Program area(s): Lead- Watershed Management Services; Resources- Planning, Flood Management, Watershed Science, and Regulations and Enforcement.
- B. Target outcomes:
 - Ensure complete internal guidelines are consistent with Provincial Policy and conform to relevant Provincial Plans.
- C. Performance indicators:
 - Six guidelines to be updated in the lifespan of this business plan.
 - Internal guideline approval by the Board of Directors.

Target 2: Update key hydrological feature mapping as defined in the Growth Plan.

- A. Program area(s): Lead- Planning; Resources- Watershed Science and Communications.
- B. Target outcomes:
 - Map key hydrological features through desktop and field exercises.
 - Incorporate policies into Planning and Regulation Guidelines that align with relevant Growth Plan policies.
- C. Performance indicators:
 - Integrate hydrological features into CA maps as a review layer in the planning process.

Target 3: Delineate groundwater recharge areas including ecologically significant groundwater recharge areas.

- A. Program area(s): Lead- Planning; Resources- Watershed Science and GIS/IT.
- B. Target outcomes:
 - Model ecologically significant groundwater recharge areas (ESGRA).
 - Integrate groundwater recharge areas into the planning process including the Board-approved Planning and Regulation Guidelines.
- C. Performance indicators:
 - Board of Directors approval on the protection of significant and ESGRA.
 - Integration of ESGRA and significant groundwater recharge areas into CA maps as a review layer in the planning process.

Objective 2 Continued
Update core NVCA guidelines and associated mapping.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Update internal guidelines and policy documents.	ongoing					
Target 2: Update key hydrological feature mapping as defined in the Growth Plan.	12 months					
Target 3: Delineate groundwater recharge areas including ecologically significant groundwater recharge areas.	24 months					

Objective 3

Continue to advance flood monitoring and warning systems combined with establishing updated floodplain mapping to increase accuracy, timeliness, and understanding flood risk.

Target 1: Update flood forecasting models to reflect climate change impacts.

- A. Program area(s): Lead- Flood Management; Resources- GIS/IT.
- B. Target outcomes:
- Develop flood thresholds (flow and water elevation) at key locations.
 - Update documentation of flood damage centres, including two-zone policy areas, and confirm these areas are adequately represented by flood forecast models.
 - Upgrade hydrologic models to flood forecasting versions to predict flows at select locations.
- C. Performance indicator:
- Number of flood threshold sites documented.
 - Number of flood centres documented.
 - Number of hydrologic models upgraded to flood forecast models.

Target 2: Update or establish new watershed-based hydrological models.

- A. Program area(s): Lead- Flood Management; Resources- GIS/IT.
- B. Target outcomes:
- Build hydrological models for the Boyne River, Pretty River, and Coldwater River and develop corresponding flood risk management plans focusing on prevention and mitigation, preparedness, response, and recovery.
 - Calibrate/verify models where adequate data is available.
- C. Performance indicators:
- Number of models built and calibrated/verified.
 - Number of flood risk management plans developed.

Target 3: Maintain and update emergency response partnership with local municipalities and other stakeholders.

- A. Program area(s): Lead- Flood Management; Resources- GIS/IT.
- B. Target outcomes:
- Identify, in partnership with the local municipality, lengths of roads and location where flooding (overtopping of road) is frequent/problematic, impacting emergency response.
 - Host annual emergency response meetings with municipalities.
- C. Performance indicators:
- Reduced length of road, for applicable municipalities, impacted by flood event.
 - Number of emergency response meetings with municipalities, per annum.

Objective 3 Continued

Continue to advance flood monitoring and warning systems combined with establishing updated floodplain mapping to increase accuracy, timeliness, and understanding flood risk.

Target 4: Evaluate climate change impacts on storm event characteristics, including intensity duration flow curves, to establish protocols for floodplain mapping studies and flood protection.

A. Program area(s): Lead- Flood Management; Resources- GIS/IT.

B. Target outcomes:

- Conduct analysis of existing precipitation and temperature data sets to determine of spatial and temporal variability of precipitation events.
- Develop tools to optimize available radar mapping products from various weather forecast services and convert storm tracks to input data for flood forecasting model.
- Analyze the vulnerability of selected infrastructure (municipal and natural) to current and future climate parameters such as extreme rainfall.

C. Performance indicators:

- Number of climate data sets analyzed.
- Number of climate-change vulnerable infrastructure assets documented.

Target 5: Advance the development and implementation of innovative erosion control practices.

A. Program area(s): Lead- Flood Management; Resources- GIS/IT.

B. Target outcomes:

- Complete a watershed-scale sediment budget to identify locations of sediment sources to the watercourses and modes of transportation.
- Conduct a watershed-scale erosion hazard assessment to identify areas of active erosion (vertical and horizontal).
- Develop and implement a sediment sampling program to collect and analyze sediment from the bed and banks of selected reaches with particular attention to areas of recent significant erosion event.

C. Performance indicators:

- Tonnes of excess sediment controlled per year.
- Decrease in land area contributing excess sediment to watercourses.

Objective 3 Continued

Continue to advance flood monitoring and warning systems combined with establishing updated floodplain mapping to increase accuracy, timeliness, and understanding flood risk.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Update flood forecasting models.	12 months					
Target 2: Update or establish new watershed-based hydrological models.	12 months					
Target 3: Maintain and update emergency response partnerships.	ongoing					
Target 4: Evaluate climate change impacts to establish protocols for floodplain mapping studies and flood protection.	12 months					
Target 5: Advance implementation of innovative erosion control practices.	ongoing					

Objective 4

Promote stormwater best management practices.

Target 1: Develop consistent stormwater management facility monitoring (post construction) across member municipalities.

- A. Program area(s): Lead- Watershed Science; Resources- Flood Management.
- B. Target outcomes:
 - Develop protocols with member municipalities to share information with regards monitoring of stormwater management facilities quality/quantity.
- C. Performance indicators:
 - Number of storm water management ponds monitored during the life of the business plan.
 - Integration of monitoring results into a data management platform.

Target 2: Promote low impact development practices that optimize the natural form and function of watercourses to mitigate erosion risk in new developments as part of a treatment train approach in consultation with municipality.

- A. Program area(s): Lead- Flood Management; Resources- N/A.
- B. Target outcomes:
 - Adopt and promote the use an appropriate Low Impact Development (LID) Guidance document with local stakeholders.
 - Develop catalogue LID practices constructed.
- C. Performance indicators:
 - Volume of water diverted to infiltration that would have otherwise gone to Stormwater management pond.
 - Number of sites using LID practices.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Develop consistent stormwater management facility monitoring.	ongoing					
Target 2: Promote low impact development practices.	ongoing					

Objective 5

Implement a natural heritage program for enhanced resource management and aid the planning process.

Target 1: Continue to update wetland inventories through assessing unevaluated wetlands and woodlands, as well as those with existing, but dated, evaluations.

- A. Program area(s): Lead- Watershed Science; Resources- GIS/IT.
- B. Target outcomes:
 - Complete updates to NVCA's wetland inventories via field-based assessment of unevaluated wetlands and woodlands as well as those with existing, but dated, evaluations.
 - Incorporate quality control for third party evaluated wetlands into an NVCA wetlands data management platform.
 - Delineation of wetland features that provides flood attenuation throughout the watersheds.
 - Complete statistical analysis to evaluate the natural capital assets these features offer per municipality in flood protection.
- C. Performance indicators:
 - Annual wetland inventory update.
 - Number of evaluated wetlands submitted to MNRF for consideration.
 - Number of update to NVCA's wetland layers (regulation layer).
 - Number of third captured third party evaluations into a wetland data management platform.
 - Relationship with Hydrologic Modeling System to examine the connection between wetlands and local water storage.

Target 2: Establish a watershed-scale Natural Heritage System Plan to assist in the plan review process.

- A. Program area(s): Lead- Watershed Science; Resources- GIS/IT, Planning, and Communications.
- B. Target outcomes:
 - Complete watershed Natural Heritage System Plan focusing on core natural heritage features.
 - Integrate the results into NVCA's planning guidelines and processes.
 - Update CA maps and associated mapping platforms to support the planning process and stakeholder/general public knowledge.
- C. Performance indicators:
 - Approval of a Natural Heritage System Plan by NVCA's Board of Directors.

Objective 5 Continued

Implement a natural heritage program for enhanced resource management and aid the planning process.

Target 3: Complete a natural capital asset inventory to quantify natural resources needed to maintain or enhance existing ecosystem services and to guide recreational activities on conservation lands.

- A. Program area(s): Lead- Watershed Science; Resources- Conservation Services.
- B. Target outcomes:
 - Finalization of a natural capital asset report including online posting.
 - Articulate value of natural assets to member municipalities.
 - Promotion of recreational opportunities, partnership with local tourism industry.
- C. Performance indicators:
 - Increased revenue generated from greater public use of natural capital assets.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Continue to update wetland inventories through evaluating unevaluated wetlands and woodlands.	on going					
Target 2: Establish a watershed-scale Natural Heritage System Plan.	24 months					
Target 3: Complete a natural capital asset inventory.	12 months					

Objective 6

Manage water quality and flows to maintain instream requirements for aquatic life, groundwater health, and ensure sustainable water supplies.

Target 1: Enhance surface water and groundwater monitoring to support systems characterization.

- A. Program area(s): Lead- Watershed Science; Resources- Flood Management.
- B. Target outcomes:
 - Review the existing monitoring systems and approaches through the identification of key strategic questions/directions to focus monitoring endeavors.
 - Implement statistically sound, adaptable monitoring programs while maintaining long-term foundational datasets.
- C. Performance indicators:
 - Integration of program results to support the planning process.
 - Report on the number of sampling sites completed on an annual basis.
 - Provision of interpreted analyzed data to the NVCA webpage on an as need basis.

Target 2: Lead the ongoing implementation of the Source Water Protection program.

- A. Program area(s): Lead- Watershed Science; Resources- Communications and GIS/IT.
- B. Target outcomes:
 - Complete the annual work plans as set forth by the Lead Source Protection Authority, LSRCA.
 - Ensure all new municipal wells are captured into the Source Water Protection planning process.
 - Assist with the on-going implementation of the Source Protection Plan.
- C. Performance indicators:
 - Number of policies in the Source Protection Plan that have been implemented as determined through the Risk Management Official Annual Reporting process.
 - Number of new municipal wells that have the Safe Drinking Water license issued.

Target 3: Build on existing stream flow and metrological monitoring network to establish better understanding of flow regime.

- A. Program area(s): Lead- Flood Management, Resources- Watershed Science and GIS/IT
- B. Target outcomes:
 - Complete development of stage-discharge curves for NVCA stream gauging stations.
 - Assess temporal/spatial coverage of hydrometric network and evaluate network gaps.
 - Evaluate relationship between existing weather and stream gauge stations (rain-runoff pairs).
- C. Performance indicators:
 - Number of historical events for which there are rain-runoff paired datasets.
 - Number of kilometers of watercourse for which flow measurements are available.

Objective 6 Continued

Manage water quality and flows to maintain instream requirements for aquatic life, groundwater health, and ensure sustainable water supplies.

Target 4: Identify information gaps relating to the nutrients in the watershed leading to water quality problems.

- A. Program area(s): Lead- Watershed Science; Resources- Stewardship and GIS/IT.
- B. Target outcomes:
 - Complete a desktop review of the spatial and temporal distribution of the nutrient information in the watershed to determine extent and historical distribution of water quality problems.
 - Complete a desktop review of the historical restoration projects and evaluate their impacts to the water quality as related to nutrients.
 - Develop subwatershed nutrient loading budgets for NVCA’s watershed and associated targets.
 - Integrate NVCA’s phosphorus loading tool into the planning process.
- C. Performance indicators:
 - Implement a subwatershed nutrient loading tool.
 - Identify key areas that could benefit from restoration activities to improve water quality and review this selection process in a timely fashion.
 - Capture the water quality layer on the CA maps to ensure that water quality is a component of the plan review process.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Enhance surface water and groundwater monitoring.	12 months					
Target 2: Lead Source Water Protection program implementation.	ongoing					
Target 3: Build on existing monitoring network to establish better understanding of flow regime.	ongoing					
Target 4: Identify information gaps relating nutrients in the watershed.	24 months					

Objective 7

Enhance knowledge of local fisheries through continued implementation of NVCA’s Fisheries Habitat Management Plan.

Target 1: Identify healthy fish communities and sensitive fish species and habitats to be monitored as barometers of watershed health.

- A. Program area(s): Lead- Watershed Science; Resources- Stewardship.
- B. Target outcomes:
 - In conjunction with landuse-water quality modelling and in-field fish sampling, delineate key fish community locations that can be used to assist in the evaluating watershed health.
- C. Performance indicators:
 - Number of field sites sampled for fish communities.
 - Online presentation of interpreted data outlining fish communities.
 - Report summarizing key fish communities and sensitive fish species/habitats.
 - On-going updating of Species at Risk database.

Target 2: Implement a study outlining the economic benefits to local economies provided by healthy fisheries as supported by good water quality conditions.

- A. Program area(s): Lead- Stewardship; Resources- Corporate Services.
- B. Target outcomes:
 - Demonstrate current and projected economic value of sport fisheries in NVCA’s jurisdiction.
 - Partnership with the local tourism industry and the local business community.
- C. Performance indicators:
 - Demonstrate economic linkages for healthy fisheries throughout the watershed.
 - Increase in overall tourism dollars to watershed communities.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Identify healthy fish communities and sensitive fish species and habitats.	36 months					
Target 2: Implement an economic study to determine benefits to local economies provided by healthy fisheries.	24 months					

Objective 8

Support stewardship and community education endeavors regarding best management practices in the community.

Target 1: Continue on-going collaboration with the agricultural community through stewardship programs for managing agricultural lands.

- A. Program area(s): Lead- Stewardship; Resources- N/A.
- B. Target outcomes:
 - Increase number of agricultural stewardship and nutrient management projects completed.
 - Increase effectiveness of completed agricultural projects.
- C. Performance indicators:
 - Number of agricultural stewardship projects completed per year.
 - Number of agricultural landowners participating in strategic river restoration projects per year.
 - Kilograms of phosphorus runoff controlled per year.
 - Kilometers of livestock fencing installed per year.

Target 2: Implement a multi-pronged, holistic stewardship approach for strategic “green infrastructure” river and wetland habitat restoration.

- A. Program area(s): Lead- Stewardship and Forestry; Resources- N/A.
- B. Target outcomes:
 - Implement stream habitat improvement projects and associated field investigations required to quantify the benefits.
 - Implement riparian buffer establishments, tree planting, and bank stabilization projects.
 - Complete riffle-building projects in concert with the necessary dam removal or river realignment projects needed to develop the appropriate channel slope.
 - Integrate riffle green infrastructure into agricultural municipal drains.
 - Work with academia to investigate mechanisms for low-flow water quality treatment in riffles and improvements associated with construction of floodplain habitats and growing-season storage of phosphorus in floodplain vegetation.
- C. Performance indicators:
 - Number of projects completed per subwatershed per year.
 - Kilograms of phosphorus runoff controlled per year.
 - Track key metrics that relate to water quality, flood and erosion reduction, and habitat restoration to provide for better adaptive programming.

Objective 8 Continued

Support stewardship and community education endeavors regarding best management practices in the community.

Target 3: Create a multi-purpose climate change program for elementary students, high school and professional development for teachers.

A. Program area(s): Lead- Environmental Education; Resources- N/A.

B. Target outcomes:

- Creation of a program to help youth and adults understand the science behind climate change, the causes, what they can do to be prepared, help mitigate the severity of its affects, and how to help change climate change.

C. Performance indicators:

- Develop programming linked to provincial education curriculum (grades 5-10).
- Repeat annual bookings with education facility/teacher/program.
- Develop new and enhance existing partnerships with watershed school boards.

Target 4: Engage landowners in forest management.

A. Program area(s): Lead- Forestry; Resources- Stewardship.

B. Target outcomes:

- Develop and assist implementation of Forest Management Plans.
- Ensure site safety for visitors.

C. Performance indicators:

- Increased forest cover within landscape.
- Increased landowner engagement in forest management/stewardship.
- Increased community partnership.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Continue on-going collaboration with agricultural community through stewardship programs for managing agricultural lands.	On going					
Target 2: Implement a multi-pronged stewardship approach for strategic "green infrastructure" river and wetland habitat restoration projects.	On going					
Target 3: Create a multi-purpose climate change program for elementary students, high school and professional development for teachers.	12 months					
Target 4: Engage landowners in forest management.	Ongoing					

Objective 9

Develop and implement an organizational recreational opportunities review.

Target 1: Using conservation lands as an asset to foster an appreciation of the watershed.

- A. Program areas: Lead- Conservation Lands; Resources- Environmental Education, Stewardship, and Forestry, and Communications.
- B. Target outcomes:
 - Ensure trail standards are maintained for accessibility.
 - Seek opportunities to engage the public with NVCA's conservation areas.
 - Promote Healthy Hikes and other similar initiatives.
 - Seek 'value added' experiences branching out from NVCA's conservation areas, e.g. enhanced tourism opportunities, expand reach.
- C. Performance indicators:
 - Number of visitors to NVCA conservation areas.
 - Revenue opportunities from increased visitors.
 - Number of education 'touch points'.
 - Number of stewardship/forestry projects.

Target 2: Acquire lands with conservation and recreational value in accordance with NVCA's Land Securement Strategy.

- A. Program areas: Lead- Conservation Lands; Resources- Planning.
- B. Target outcomes:
 - Identification of priority properties/landowners for land acquisition.
 - Develop a plan for donation/ conveyance inquiries.
- C. Performance indicators:
 - Increased hectares of land secured or partnership ownership (NCC, land trust, other) within NVCA's watershed.
 - Increased recreational opportunities or watershed residents and visitors.

Objective 9 Continued

Develop and implement an organizational recreational opportunities review.

Target 3: Work with NVCA partners to develop recreational, educational, and stewardship opportunities at conservation areas and program review for enhancement opportunities.

- A. Program areas: Lead- Conservation Lands; Resources- Environmental Education, Stewardship, and Forestry, and GIS/IT.
- B. Target outcomes:
 - Continue relationships with current partners and extend new partnership opportunities.
- C. Performance indicators:
 - New/enhanced partnerships to assist or complement projects and programming.
 - Access diversified funding sources.
 - Foster a community of support for NVCA's conservation areas.

Target 4: Target one conservation area annually for investigation and enhancement.

- A. Program area: Lead- Conservation Lands; Resources- Watershed Science, Stewardship and Forestry, and GIS/IT.
- B. Target outcomes:
 - Complete property assessment (property boundary, ecological assessment, trail assessment, unlawful hunt stands, etc.) and address noted issues.
 - Evaluate assets or features that would enhance/protect the properties infrastructure (ex. boardwalks, trail maintenance, signage) and incorporate into budgetary planning and fundraising process.
 - Review conservation area website content to ensure consistency and accuracy
 - Develop and implement a plan for updating property management plans.
- C. Performance indicators:
 - Increased visitors to NVCA conservation areas.
 - Reduced conflict between user groups of and near conservation areas.
 - Reduced environmental impact of recreation on conservation areas.
 - Improved visitor experience at NVCA conservation areas.
 - Develop a better understanding of the uses and impacts of NVCA's conservation areas.

Objective 9 Continued

Develop and implement an organizational recreational opportunities review.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Using conservation lands as an asset to foster an appreciation of the watershed.	ongoing					
Target 2: Acquire lands in accordance with NVCA's Land Securement Strategy.	ongoing					
Target 3: Develop recreational, educational, and stewardship opportunities at conservation areas.	ongoing					
Target 4: Target one conservation area annually for investigation and enhancement.	ongoing					

Objective 10

Promote resource use for organizational business continuity, sharing of science based information and increasing organizational efficiencies.

Target 1: Centralization of information and databases on the Universal Network Controller (UNC) hub to support integrated data management.

- A. Program area(s): Lead- GIS/IT; Resources- Watershed Science, Planning, Conservation Services, and Corporate Services.
- B. Target outcomes:
 - Identify datasets and shared resources for Business continuity at NVCA.
 - Create additional efficiencies for information access and resource management.
 - Migration of self-standing data applications into the UNC.
 - Development of new applications into the UNC.
- C. Performance indicators:
 - Reduced redundancy of information.
 - Reduction of self-standing databases.
 - Number of applications in the UNC.
 - Increased efficiency for staff accessing resources.

Target 2: Enhancement of program workflows through continued development of web based mapping tools.

- A. Program area(s): Lead- GIS/IT; Resources- Watershed Science, Planning, and Conservation Services.
- B. Target outcomes:
 - Replace public facing web-mapping.
 - Link information to conservation areas information on web mapping.
 - Add links to NVCA databases on internal web-mapping tool (CA Maps).
 - Integrate Watershed Science data with mapping tools.
- C. Performance indicators:
 - NVCA website links to new public facing GIS Web Application.
 - Reduction of ESRI cost through Simcoe County.
 - Number of hits to CA Maps from public.
 - Reducing of GIS request for data available through Web-Mapping.

Objective 10 Continued

Promote resource use for organizational business continuity, sharing of science based information and increasing organizational efficiencies.

Target 3: Integrate interactive watershed science data into NVCA's website.

- A. Program area(s): Lead- Watershed Science; Resources-Communications, and GIS/IT.
- B. Target outcomes:
 - Communicate all relevant watershed monitoring data on an interactive online platform which includes analyzed data showcasing temporal and spatial distribution and trends of the data.
- C. Performance indicators:
 - Number of website hits.
 - Number of data sets positioned on the website via an interactive platform.

Target 4: Launch an online open source data portal.

- A. Program area(s): Lead- GIS/IT; Resources- Watershed Science, and Flood Management.
- B. Target outcomes:
 - Integration of monitoring data into the UNC and data portal.
 - Development of an open data standard and disclaimer.
 - Development of a searchable monitoring data network.
 - Spatial distribution of monitoring stations on Web based mapping platform.
- C. Performance indicators:
 - Number of hits / downloads on open data portal site.
 - Reduce phone calls for data.
 - Reduced staff time on data assembly.

Target 5: Develop an on-line tools for the permitting process.

- A. Program area(s): Lead- GIS/IT; Resources- Regulations and Enforcement and Planning.
- B. Target outcomes:
 - Establish workflows for the permitting process.
 - Online forms for the permit applications.
 - Interactive mapping for address search.
 - Payment / e-commerce system for permitting applied.
- C. Performance indicators:
 - Reduced calls to planning / regulation department for consultation.
 - Reduced walk-in consultation.
 - Reduced staff time on payment/invoice processing.
 - Meet provincial and Conservation Ontario timelines for service delivery.
 - Increased revenue from permitting applications.

Objective 10 Continued

Promote resource use for organizational business continuity, sharing of science based information and increasing organizational efficiencies.

Implementation Schedule

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Centralization of information and databases on the Universal Network Controller.	ongoing					
Target 2: Continued development of web based mapping tools.	ongoing					
Target 3: Integrate interactive analyzed watershed science data into NVCA’s website.	8 months					
Target 4: Launch an online open source data portal.	12 months					
Target 5: Develop an on-line tools for the permitting process.	6 months					

Objective 11

Maintain and collect spatial data supporting CA business continuity.

Target 1: Development of an update schedule for base data.

- A. Program area(s): Lead- GIS/IT; Resources- N/A.
- B. Target outcomes:
 - Identify key dataset for NVCA business and sources.
 - Development of a metadata standard.
 - Create an update/acquisition schedule.
- C. Performance indicators:
 - Regulation mapping update schedule is established.
 - Meta data has been applied to NVCA data sets.
 - Update targets are met.

Target 2: Participate in provincial and municipal data collection initiatives.

- A. Program area(s): Lead- GIS/IT; Resources- N/A.
- B. Target outcomes:
 - Acquire best available data for NVCA business areas.
 - Strengthen our relationships with government agencies.
- C. Performance indicators:
 - High resolution digital elevation base mapping acquired.
 - Up-to-date ortho-imagery.
 - Attendance at local and provincial workshops, meetings, and webinars.
 - Increase resources available to NVCA staff.

Target	Timeline (Duration)	2021	2022	2023	2024	2025
Target 1: Update schedule for base data.	2 months					
Target 2: Participate in provincial and municipal data collection initiatives.	ongoing					

A grayscale photograph of a hand holding a pen, poised to write on a document. A ruler is visible in the foreground, and a circular object, possibly a coin or a small clock, is partially visible on the right. The word "IMPLEMENTATION" is overlaid in large, bold, white capital letters across the center of the image.

IMPLEMENTATION

The 2021-2025 Business Plan identifies 11 key objectives. It will be implemented annually through the NVCA budget process with individual objectives and corresponding targets highlighted through the annual program overview. The successful implementation of the Business Plan will require interdepartmental integration and communication as each target within the plan relies on multiple departments and programs for delivery. A lead and timeline for each target has been identified to assist with the budgetary planning process and reporting.

Similarly, the summary of annual activities referenced in the Business Plan will be highlighted in the annual report. Resources will be identified annually required to fulfill this plan. Further, it is envisioned that staff personal development plan will be tied to the objectives and targets in order to ensure the corporate integration and tie-in of the strategic plan, this business plan, annual work plan-budget, and lastly the annual report.

Several objectives and associated targets in this business plan will require additional funding outside the current budget structure. To complete these targets, the NVCA Management Team will coordinate to seek and secure additional funding where possible.





Nottawasaga Valley
Conservation Authority

www.nvca.on.ca
e: admin@nvca.on.ca
t: 705-424-1479

8195 8th Line
Utopia, ON
L0M 1T0



FOLLOW US ON SOCIAL MEDIA
[@nottawasagaca](https://www.instagram.com/nottawasagaca)