CENTRAL LAKE ONTARIO CONSERVATION

2019 ANNUAL REPORT

Healthy watersheds for today and tomorrow.

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WHERE WE ARE NOW

Since our establishment in 1958, we still operate under the three basic principles that formed the cornerstones of Conservation Authorities.

In response to serious environmental challenges experienced in Ontario, a conservation movement began in the early part of the previous century; one that would pick up momentum over more than four decades, to result in provincial legislation in 1946 known as the *Conservation Authorities Act*. The *Conservation Authorities Act* delivered essential tools to face these challenges in the form of voluntarily created, locally managed, watershed organizations: Conservation Authorities. Three basic principles of our business are:

- **the recognition of the watershed as a natural planning unit;**
- **local initiatives and involvement; and,**
- **municipal-provincial partnerships.**

Interestingly, since Central Lake Ontario Conservation (CLOCA) was established in 1958, more than 61 years ago, we still operate under those three cornerstones and they remain relevant to current challenges. We continue to promote the conservation, restoration, responsible management, protection and enhancement of our watershed. We carry out these responsibilities with our municipal partners–Durham Region, the Townships of Scugog and Uxbridge, Cities of Pickering and Oshawa, Towns of Ajax and Whitby, and the Municipality of Clarington–the provincial and federal governments, and, of course, many community partners and stakeholders. Our message remains that the health of our watershed matters and, moreover, supporting a watershed that is resilient, healthy and sustainable requires the efforts of many. As you will note in the 2019 Annual Report that follows this introduction, thanks to the efforts of many, we continue to put the watershed first and encourage others to do the same.

Councillor Bob Chapman,
CLOCA Chair

Chris Darling,
CLOCA CAO

2019 BOARD OF DIRECTORS

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Councillor Sterling Lee

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2019 ANNUAL REPORT

LEADERS IN INTEGRATED WATERSHED MANAGEMENT

Watershed and Habitat Restoration

Volunteers plant native trees at Heber Down Conservation Area for Earth Day.

CLOCA WATERSHED PLANS FIVE-YEAR UPDATE

In 2019 CLOCA continued with the update to our four watershed plans which included consultation with municipalities, stakeholders and the general public. The draft documents have updated watershed targets, reference new modelling scenarios and evaluate watershed changes including landscape features, applicable legislation, climate change, relevant source water protection polices, new policies, actions and recommendations.

Work was completed on valuing and assessing the contribution of natural features and functions within each plan to identify municipal assets. As well, we collaborated with the Region of Durham for consideration to incorporate the updated watershed plan information into their *Official Plan* review.

CONSERVATION LANDS MASTER PLAN PROJECT UPDATE

Lands owned and managed by CLOCA support and help sustain Durham Region's critical natural resources including water, aquatic, terrestrial and wildlife habitats. These lands are where Durham residents visit to enjoy and experience nature. With a growing population and more demands for greenspace, we anticipate visitorship will increase. In response to this, we have been working on a *Conservation Lands Master Plan* to ensure these publicly accessible lands continue to protect the Region's critical natural resources, and provide appropriate recreational and educational needs. In 2018 we focused on data-gathering and consultation. In 2019 we analyzed the data collected to complete a municipal, community and conservation land needs assessment, upon which to develop the overall *Master Plan* in 2020.

Walking the trails at Long Sault Conservation Area, getting some vitamin 'N'.

CONSERVATION AREA IMPROVEMENTS

Each year, CLOCA staff implement several projects at various conservation areas to update and replace aging public-use infrastructure, facilitate day-use bookings, deliver enforcement services, make trail improvements and enhance or manage natural heritage features. In 2019, we accomplished the following:

1,500

HAZARD TREES HAVE BEEN REMOVED

Hazard tree removal as a result of staff and public reports and regularly scheduled conservation area inspections was 380 trees. Since 2017 more than 1,500 hazard trees have been removed along our 45-kilometre trail system.

300

NATIVE SPRUCE TREES

The annual Earth Day Tree Planting was held at Heber Down Conservation Area where our volunteers assisted with the planting of 300 native spruce trees to increase forest cover in the Lynde Creek watershed.

- Installation of three trail counters at our conservation areas that use infrared beams to sense an image and track the actual number of visitors.
- Ongoing training of Operations staff in conflict resolution, first aid, seasonal and full equipment training, and fire extinguisher training.
- Replacement of a high-voltage underground line at Enniskillen Conservation Area that supports the Education and Operations facilities.
- Continue to actively manage conservation lands for Species at Risk at Lynde Shores and Long Sault Conservation Areas.
- Continued enforcement efforts in partnership with Durham Region Police Services to address infractions and compliance with policies governing activities in our conservation areas.
- Upgrades to the Sugar Shack Trail at Purple Woods Conservation Area to assist with drainage.
- Removal of aging boardwalk infrastructure at Lynde Shores Conservation Area.
- Whitby Councillor Joe Drumm was honoured for his 41 years of services on the CLOCA Board with the naming of the Joe Drumm Trail at Heber Down Conservation Area.

Retired Whitby Councillor and CLOCA board member Joe Drumm honoured by trail-naming at Heber Down Conservation Area.

NATURAL HERITAGE RESTORATION PRIORITIZATION MODEL

In 2019 CLOCA developed a *Natural Heritage Restoration Prioritization Model* to guide the decision-making process for determining where to implement restoration across our 629 square kilometre jurisdiction. This Model will enable us to approach restoration proactively, targeting areas that would benefit most from restoration. Using our watershed health indicators, Natural Heritage and Ecological Land Classification mapping, this Model can be applied at a watershed scale or at the site level. Implementation of the *Natural Heritage Restoration Prioritization Model* will significantly assist our efforts to improve watershed health and climate resiliency. The application of the Model is completed for the Bowmanville/Soper Creek watershed and nearing completion for remaining watersheds, to help identify priority restoration areas. This tool will also be available publicly, supporting watershed stakeholder and municipal restoration initiatives.

Lynde Creek Marsh, Whitby

PLANNING AND REGULATION

The focus of our Planning and Regulation responsibilities continues to be on protecting people and property from natural hazards. We direct new development away from natural hazards and protect wetlands, watercourses, woodlands, fish habitat and other key natural features. In addition to adopting new client services and streamlining initiatives to improve our service delivery, we also achieved the following:

- Provided environmental planning advice on over 77 pre-application consultation meetings with landowners, developers and municipal planning department staff.
- Issued over 234 permits for various development activities, under *Ontario Regulation 42/06*.
- Reviewed over 350 different technical submissions from municipalities, consultants and landowners and entered over 5,300 documents into our electronic records management system for efficient retrieval and archiving.
- Managed multiple prosecutions in Provincial Offences Court to maintain the integrity of the development regulation and address unsafe and unauthorized development activities.
- Provided formal comments in the preparation of the *Draft Watershed Plan Updates* and technical studies for the *Oshawa Creek-Goodman Two-Zone Flood Plain Study*.
- Provided technical data, advice and detailed design review and approvals for many municipal infrastructure environmental assessments across the watershed.

PLANNING AND REGULATION

CLOCA plays an important role in the development of municipal policy, zoning, studies, provincial legislation and guiding documents which focus on natural heritage, wetlands, conservation authority product and service delivery, agriculture land use and large-scale commercial fill operations. In 2019 we dedicated significant effort toward the following:

CITY OF OSHAWA

- Supported the City of Oshawa with technical and policy input to protect significant wildlife habitat for migratory monarch butterflies.
- Collaborated on subwatershed studies and secondary plans for more sustainable future growth.

MUNICIPALITY OF CLARINGTON

- Responded to staff and Council in support of the proposed new Zoning By-law
- Collaborated on subwatershed studies and secondary plans for more sustainable future growth.
- Provided a comprehensive set of recommendations for addressing Lake Ontario-related natural hazards in Port Darlington.

REGION OF DURHAM

CLOCA actively participated in the *Envision Durham Regional Official Plan* Municipal Comprehensive review by providing detailed comments in support of Sustainability and Climate Change, protection of agricultural lands and worked in partnership with the other four Durham conservation authorities to provide one set of comments on the Environment and Greenlands System topic area.

PROVINCE OF ONTARIO

CLOCA provided technical expertise to the updating, changes and or refinement of the following provincial initiatives:

- *Conservation Authorities Act* Section 28 development regulations;
- New Provincial Excess Soil Regulation:
- Amendment to the Growth Plan for the Greater Golden Horseshoe and associated technical guidance;
- *Planning Act*;
- Streamlining the development review process and commenting on proposed changes to the Provincial Policy Statement;
- Supported the effective and efficient implementation of drinking water Source Water Protection Planning across the Credit Central and Toronto Conservation Source Protection Region.

INVASIVE SPECIES MANAGEMENT

Our Conservation Area lands are challenged by several terrestrial invasive plant species and we continue to implement our *Invasive Species Management Strategy*.

Results of CLOCA's phragmites management project at Heber Down Conservation Area.

1.4 TONNES

GARLIC MUSTARD REMOVED SINCE 2014

At **Purple Woods Conservation Area**, we completed year six of our garlic mustard management program. To-date we have engaged over 800 students and removed 1.4 tonnes of garlic mustard. The understory of this mature deciduous forest is responding very well, with an increase in native plant coverage documented through our *Integrated Watershed Monitoring Program*.

80,000

NATIVE CONIFERS PLANTED SINCE 2016

Also, we continue to manage dog strangling vine on the Carruthers Tract, which is part of the **Enniskillen Conservation Area**. To-date we have planted an estimated 80,000 native conifers and ongoing management of these sites to reduce competition from invasive species is key to establishing new forest cover in the Bowmanville/Soper Creek watershed.

80 PER CENT

REDUCTION OF PHRAGMITES

At **Heber Down Conservation Area**, we continue to manage phragmites, an invasive plant established along an existing utility corridor. Volunteers conducted spading activities and staff had a licensed contractor manage a portion of the population with herbicide in partnership with key stakeholders, Enbridge, HydroOne and TransNorthern Pipeline. On average, staff have seen a reduction of phragmites stem density and cover by 80 per cent. Continued monitoring and planting of native plants at this site are next steps to reduce the presence of this unwelcome visitor.

1,000+

CITIZENS ENGAGED

CLOCA regularly engages the public in invasive species outreach and education; in 2019 we hosted several programs in partnership with the Town of Whitby and Municipality of Clarington libraries, Darlington Provincial Park, the Oshawa Garden Club, Thickson's Woods Land Trust, the Oak Ridges Trail Association and the Clarington Visual Arts Centre. Through these events, CLOCA staff engaged with over 1,000 citizens around invasive species and their impacts on Ontario's natural heritage.

ADVANCED WATERSHED SCIENCE AND KNOWLEDGE

To be the respected and trusted source of environmental knowledge and relevant scientific information for the watershed.

Natural shoreline bluff along the Whitby/Oshawa Lake Ontario shoreline.

CLIMATE CHANGE

CLOCA is working on multiple fronts to advance our scientific and adaptation knowledge with respect to climate change. Through our Draft Watershed Plan Updates, we have examined the impacts of climate change on watershed processes, including the identification of adaptation practices that will help lessen these impacts. In partnership with Durham Region, our staff are leading the flooding and natural heritage sector climate change adaptation work identified in the *Towards Resilience: Durham Community Climate Adaptation Plan – 2016.*

This includes work on development of an updated climate change ensemble model for Durham Region, incorporation of climate change considerations within municipal and regional policies, and official and operational plans and initiation of a climate resilient natural heritage system. In March, the collaborative hosted the first annual Natural Environment Climate Change Summit showcasing activities currently being undertaken by municipalities and conservation authorities to adapt to climate change.

PORT DARLINGTON SHORELINE HAZARDS STUDY

In partnership with the Municipality of Clarington CLOCA completed a Hazard Management Study for Port Darlington, located along Lake Ontario in a documented shoreline Damage Centre. Record high Lake Ontario water levels in 2017 and 2019 resulted in prolonged periods of flooding in this area. The study was initiated to further investigate the natural hazards imposed on existing homes and infrastructure, investigate methods for reducing impacts, and propose a plan for managing future flooding risks.

CLOCA invited public comments on work completed in the Port Darlington Community Shoreline Management Plan Report on Flooding 2018 (CLOCA, November 2018), Port Darlington Shore Protection Concepts (Baird Engineering, November 2018), and Proposed Port Darlington (West Shore) Shoreline Management Report (Aqua Solutions 5 Inc., November 2018). These undertakings have resulted in a series of recommended actions endorsed by CLOCA's Board of Directors, to pursue measures in the Port Darlington community to manage flood and erosion risks.

LAKE ONTARIO SHORELINE HAZARDS MANAGEMENT PLAN UPDATE

Work was initiated in 2019 to update the 1990 Lake Ontario Shoreline Hazards Management Plan (Sandwell Swan Wooster) by Zurek Inc., a coastal engineering firm. The Sandwell report documented Shoreline Damage Centres and suggested protection measures to manage the risks at these locations. The study area includes the reach of shoreline from Ajax to Brighton and is a collaboration between Central Lake Ontario, Ganarska and Lower Trent Conservation Authorities with funding provided by the National Disaster and Mitigation Plan, covering 50 per cent of the project budget. The priority for this update is to provide the necessary scientific and engineering analysis to manage the shoreline. A public Open House was held in November and feedback was requested from residents currently residing in those Shoreline Damage Centres. The final document will be completed in 2020.

INTEGRATED WATERSHED MONITORING PROGRAM

CLOCA's *Integrated Watershed Monitoring Program* enables us to identify changes, both incidental and long term, in the quality and condition of watershed health. Monitoring results were updated into CLOCA's online StoryMap using text, interactive maps and other multimedia content to share the information in an interactive way. Data for water quality, aquatic monitoring (including benthic invertebrates, fish community, spawning surveys, in-stream barriers and temperature), birds and amphibians were updated, alongside data collected for our permanent terrestrial monitoring plots. Work also continued on invasive species monitoring and programming with an emphasis on long-term manage in support of our Invasive Species Management Strategy. Refer to Invasive Species Management on page 8 for more details.

In 2019 CLOCA initiated a turtle monitoring project that will provide greater detail regarding the presence and absence of turtle species in wetlands across our jurisdiction. A unique partnership with the Durham Woodworkers Club allowed them to build us state-of-the-art collection traps that were placed in our coastal wetlands to capture, document and tag Painted and Snapping turtles providing baseline information to conduct population trajectories. This will help us better understand movement patterns and population characteristics, offering insights into survivorship, sex ratios, movements, and range sizes of turtles. This will contribute significantly to habitat protection and creation. The turtles are captured and returned at the same location, within a 24 hour period.

DURHAM REGION COASTAL WETLAND MONITORING PROGRAM

CLOCA continued to monitor 18 Great Lakes' coastal wetlands across Durham Region, now into its 18th year of data collection. Several stakeholders, including Environment Canada, neighbouring Conservation Authorities and local volunteers, assist with monitoring activities by collecting and recording the data. This information and provides us with a better understanding of the overall health of these biologically rich and productive ecosystems and the watersheds that drain into them.

CLOCA also continued to prepare Wetland Conditions and Management Reports for several of these coastal wetlands. The following highlights work undertaken in support of future wetland restoration efforts:

- For **Corbett Creek Marsh** and its surrounding watershed, we engaged and partnered with the Town of Whitby, Thickson Woods Land Trust and others in developing and undertaking measures to support management and restoration efforts. Work was undertaken to better understand and manage invasive species and to monitor water quality in publicly accessible areas within the Corbett Creek watershed.
- For **Oshawa Second Marsh**, we participated in the Steering Committee tasked with updating a 20-year-old Management Plan. This coastal wetland continues to be significantly influenced by its urbanized watershed, invasive species, climate change and Lake Ontario water levels. We assisted with the identification of new adaptive management techniques and tools to ensure the Marsh and its habitat remains healthy, diverse and productive. The Management Plan update, funded by the City of Oshawa, will address forest and invasive species management and incorporate comments received through the 2019 public consultation process.
- We partnered with the Ontario Tech University's Kirkwood Lab on a one-year project to build on our knowledge of coastal wetland processes. We used their expertise in collecting data on phytoplankton and zooplankton which are small plant and animals that live in the water. This will round out our biotic data which has focused on fish, amphibians, birds, benthic invertebrate and aquatic vegetation. In 2020, this information will be beneficial in creating a more robust data set to assess food web interactions. By filling this gap, we will have a more complete picture for recommending restoration and management actions to improve overall health and ecosystem services for our coastal wetlands.

Data collection in Cranberry Marsh.

Flood damage area is identified using a 3D modeling tool.

WATER MONITORING NETWORK/FORECASTING/ FLOOD WARNING

CLOCA's Water Monitoring Network is a collection of stream gauges, rain gauges, air and water temperature probes, groundwater monitoring wells, snow measurement sites and surface water and groundwater quality sites. This Network and the valuable information it collects contributes to a better understanding and ability to predict the impacts of land-use activities and make informed decisions about the management and protection of our water resources.

Our Flood Forecasting and Warning System was enhanced through several projects that improved the automation of data retrieval from the gauge stations, data management and reporting. We were responsible for protecting people and property from flood and erosion hazards as part of Ontario Regulation 42/06 issuing 19 Flood Messages with 202 days under flood notices. Information we collected, including gauge data and floodplain information, continues to be made more accessible to staff, municipal partners and the general public through improvements to our web-based products.

Early Warning Systems are now in place and send email alerts to appropriate staff advising of significant rainfall or water levels nearing flood conditions at various gauging stations. In 2019, new database platforms were explored, and predictive forecasting models were researched to look for cost-effective methods to model flood response from weather forecasts.

We continue to partner with Water Survey Canada and the Ontario Ministry of Natural Resources and Forestry for the Flood Forecasting and Warning System (FFWS) and the Ministry of the Environment, Conservation and Parks for the Provincial Water Quality Monitoring Network and Provincial Groundwater Monitoring Network. These partnerships create efficiencies and reduce duplication, offsetting overall program costs. The data is catalogued and analyzed to help us develop effective watershed-wide management programs and policies to update the FFWS, Low-Water Response and Source Water Protection programs.

WATER MONITORING NETWORK / FORECASTING / FLOOD WARNING

Continued from page 10

Under the National Disaster Mitigation Program (NDMP), we received 50 per cent of the actual costs for flood mitigation projects. In 2019, we worked with the City of Oshawa in the completion of the Oshawa Creek/Goodman Creek Two-Zone Flood Study. Under this same funding, and partnering with the Town of Whitby, we initiated the Corbett Creek Floodplain Mapping project, to provide updated floodplain information in a digital format for this watershed.

Each year we review the location of monitoring equipment and its effectiveness in recording the required data and replace outdated and inoperable equipment.

CLOCA also received NDMP funding to allow for Monitoring System Upgrades for our Flood Forecasting and Warning System. Outdated equipment will be replaced, to improve reliability and improve data retrieval, data storage, and alarm systems.

We also partnered with the Town of Whitby to initiate a Municipal Class Environmental Assessment study to investigate the risk of flooding from Lynde Creek. The study is examining the previously proposed culvert improvements and flood protection berm options in more detail and will develop other reasonable alternatives to reduce or eliminate the risk of future flooding and flood damages.

Ice jams in local creeks are monitored as part of our Flood Forecasting and Warning Program.

OAK RIDGES MORAINE GROUNDWATER PROGRAM

Our YPDT-CAMC (*York, Peel, Durham, Toronto and The Conservation Authorities Moraine Coalition*) *Oak Rideges Moraine Groundwater Program* (ORMGP) continues to improve our understanding of groundwater resources on the Oak Ridges Moraine, a regional hydrologic feature and source of drinking water for over 200,000 people in the Greater Toronto Area.

Across south-central Ontario, a coalition of 13 government agencies, and 12 local consulting companies, are working collaboratively to better understand and manage water resources. With the Oak Ridges Moraine as a central landscape feature, the Program's database and interpretations stretch from the Credit and Nottawasaga Watersheds in the west to the Trent River in the east and reach from the shores of Lake Ontario northwards to beyond Lake Simcoe and the Kawartha Lakes.

With rigorous data management as a core foundation, the Program provides a multi-agency, collaborative approach to collecting, analyzing and disseminating water resource knowledge as a basis for effective decision making and stewardship of water resources in this part of Ontario. At CLOCA, like other agencies, we look to the Program to provide the regional geological and hydrogeological context for our ongoing technical studies and management initiatives. In 2019, work continued on the following deliverables related to database, geology, modelling, and the program website:

- Helped to lead regional comprehensive modelling studies in both Peel and Durham Regions. The models, to be completed in 2020, will prove to be important long-term tools used to better understand and manage water resources across these two regions.
- Continued to update the website with additional interpretive products and advise technical partners about the benefits of making use of the Program's website through several presentations to various technical and decision-making audiences in the study area.
- Staff were appointed to a committee established by the Standards Council of Canada (SCC) to assist in setting standards for weather stations and providing input to the Federal Commissioner of the Environment and Sustainable Development regarding the management of Canada's freshwater resources.

For more information on the ORMGP, a full report will be accessible on the website in early February at www.oakridgeswater.ca

PROVINCIAL GROUNDWATER MONITORING NETWORK

The Provincial Groundwater Monitoring Network (PGMN) is a partnership program with all 36 Ontario Conservation Authorities and 10 municipalities (in areas not covered by a Conservation Authority) to collect and manage ambient (baseline) groundwater level and quality information from key aquifers located across Ontario. In partnership with the Ministry of the Environment, Conservation and Parks, Conservation Authorities are responsible for collecting data and maintaining the PGMN wells and monitoring equipment. There are more than 450 monitoring wells in the network. The information system now has data on both water level and water chemistry.

Each year, groundwater well monitoring equipment is inspected regularly to ensure proper functioning and data collection. The data is reviewed and analyzed quarterly providing input to the Oak Ridges Moraine Groundwater Program (ORMGP) shared database, as well as the provincial online database. We use this data to support internal groundwater characterization and water budget modelling. CLOCA currently maintains 15 wells under the PGMN. These monitoring wells provide continuous water level data, recorded hourly by permanently installed level loggers. Water quality samples are collected and analyzed annually from these wells and we now have over 15 years of water level and water quality data.

Downloading data from one of our PGMN groundwater monitoring wells.

COLLABORATE AND PARTNER

To promote a stronger culture of collaboration and partnership across the watershed.

Mindfulness Hike participants throwing their seed bombs to restore a meadow.

BACK2NATURE PROGRAM

The *Back2Nature Program*, new for 2019, was the result of a partnership between the Welcome Centre Immigrant Services Ajax and Pickering, TD Friends of the Environment, Enbridge Pipelines Inc., Hike Ontario, Durham Region Field Naturalists and the Community Development Council. The program introduced new-comers and new Canadians to hiking in local conservation areas.

The Program was free and included bus transportation to and from the Welcome Centres and the conservation areas. We offered language interpretation services and a mandatory hike safety orientation session. The Program engaged more than 100 participants who hiked our trails in each season, to explore and develop confidence in connecting with the natural environment.

MARVELOUS MONARCHS PROGRAM

This year CLOCA introduced the Marvelous Monarch program at three watershed libraries with a self-guided display of monarch butterflies, real and models, showcasing their lifecycle, relationship with milkweed and migration patterns.

The response from each library and library patrons was thrilling for us, likely reaching about 125 patrons per week, over three weeks.

CLOCA staff hosted a 'Meet the Monarch Keeper' each week to offer an up-close-and-personal opportunity for participants.

Back2Nature program participants at Enniskillen Conservation Area.

LOW IMPACT DEVELOPMENT WORKSHOP

Central Lake Ontario Conservation continued to deliver Low Impact Development (LID) workshops providing consultants, developers and municipal staff with the tools to better incorporate these small and large scale water infiltration tools for proposed development. Participants in 2019 learned about the key processes for construction, certification, inspection and maintenance of LID measures.

A series of in-field inspection and maintenance activities were also offered during the workshop, giving participants the opportunity for hands-on learning. An overwhelming number of the 56 participants provided very positive feedback on the event. A third LID workshop is planned for 2020 and we will reach out to past attendees to determine priority topics and interests of our past attendees.

INCREASING FOREST COVER

Central Lake Ontario Conservation's efforts to re-establish missing forests and strengthen existing ones continued in 2019 with the planting of 900 native trees.

These planting programs continue to support a well-connected natural heritage system to store carbon while contributing to overall biodiversity for a variety of wildlife.

We are grateful to our planting partner, TD Tree Days for their continued support in community planting projects at Heber Down and Purple Woods Conservation Areas.

Our second Low Impact Development Workshop at Purple Woods Conservation Area.

CLARINGTON TREES FOR RURAL ROADS PROGRAM

In an ongoing effort to enhance and replace trees along rural roads, the Municipality of Clarington, in partnership with CLOCA and Ganaraska Region Conservation Authority, offers the *Trees for Rural Roads Program* for distribution and planting along municipal roads on private land.

The Program has now planted 4,857 trees along rural roads in the Municipality of Clarington since it began in 2012. In 2019, CLOCA engaged 17 landowners, planting 232 trees. The program has many benefits including improving the aesthetics of the rural countryside, increasing tree canopy and providing important wildlife habitat.

HIGHWAY OF HEROES TRIBUTE

In 2019 CLOCA established a new partnership with the Highway of Heroes Tree Campaign and neighbouring Conservation Authorities with watersheds along the 401 Highway of Heroes corridor. The Toronto and Region, Ganaraska, Lower Trent and Central Lake Ontario Conservation Authorities now share a dedicated staff person and financial incentives to prescribe and plant trees on private land. Our targeted efforts will focus on marginal and retired agriculture lands in our 4 large watersheds to improve forest and interior forest cover. This project will benefit from the modeling completed as part of the Natural Heritage Restoration Prioritization Model.

Earth Day tree planting at Heber Down Conservation Area.

COMMUNICATE, EDUCATE, INSPIRE

To share our watershed story, to inspire our community to be watershed champions and to take action for real change.

Staff and MPP Jennifer Frech's Legislative Assistant, T.J. Thompson at the Durham Children's Watershed Festival.

PURPLE WOODS MAPLE SYRUP FESTIVAL

For 44 years, CLOCA staff and their many community partners have contributed to the successful delivery of the annual Maple Syrup Festival at Purple Woods Conservation Area. In March we delivered this family-friendly experience to celebrate the first crop of spring. We showcased 400 years of maple syrup history in our community, complete with fireside stories and lots of hands-on activities for kids and those young at heart. Just over 9,500 visitors had an opportunity to catch a horse-and-wagon ride, play games and meet some local wildlife. After hiking our trails, they enjoyed some hot pancakes, sausages, cider and maple syrup served up in Heritage Hall by our community volunteers. We had our best production ever in 2019, tapping 800 trees and producing 1,358 litres of maple syrup.

Our returning sponsors included Ontario Power Generation Darlington, Greenstone Tree Service, Scugog Shores Museums, Tribute Communities, Bawaagigewin Aboriginal Community Circle, Autism Ontario, Vickery Electric, Oshawa Community Museum, Windreach Farms, RBC Blue Water, Soper Creek Wildlife Centre. New sponsors include the Auto Workers of Canada Credit Union (AWCCU) who sponsored our second annual Sugarbush Lantern Walk.

22ND ANNUAL DURHAM CHILDREN'S WATERSHED FESTIVAL 5663-19

This year's Durham Children's Watershed Festival at Camp Samac hosted 3,329 Grade 4 students and 588 teachers and adult volunteers. The location at Camp Samac is central to participating schools and provides our visitors with a safe environment to explore natural and simulated water activities.

With financial and in-kind contributions from sponsors, we continue to subsidize costs for students to make the experience affordable. A thank-you to our event sponsor, the Region of Durham, and the many community sponsors:

Cargill Foundation, Charities Aid Foundation of America, Covanta Durham York Renewable Energy, Dufferin Aggregates (CRH Canada Group Inc.), D.G. Biddle & Associates Limited, Enbridge Community Investment, the Municipality of Clarington, Ontario Power Generation, RBC Foundation, Trans Canada Pipelines Ltd., TD Friends of the Environment, Tribute Communities, Unifor Local 222, Walmart Foundation and Mississaugas of Scugog Island First Nations.

CLOCA IS A BEE CITY BUSINESS

CLOCA received the Bee City Business designation by Bee City Canada, making us the 14th Bee City Business in Canada and the first Conservation Authority to receive this recognition. The Bee City designation is awarded to those entities that publicly declare to protect pollinators and their habitat through coordinated and collaborative actions that align with the Bee City program.

We currently maintain pollinator gardens at three locations including Purple Woods and Enniskillen Conservation Areas.

Enniskillen Conservation Area's gardens have been certified as Wildlife-Friendly Habitat by the Canadian Wildlife Federation and registered as a Monarch Way Station through Monarch Watch. The gardens were also recognized as semi-finalists in the Wildlife Habitat Council's Bee Hotel Competition in 2018.

Students participating in our education programs learn first-hand what a pollinator garden looks like, how to plant for many species of pollinators including monarch butterflies, and even how to raise them.

CONSERVATION AREA TRAIL STEWARDSHIP PROGRAM (CATS)

CLOCA initiated the Conservation Area Trail Stewardship Program (CATS) at Lynde Shores Conservation Area with 11 volunteers completing their onsite and online training. They have committed to visiting our trials a minimum of two-three hours per month over the course of 2020. During each visit they will assist in trail maintenance and informal educational engagement with the public.

Based on the success of the program from an operational perspective and feedback from these volunteers about their experience, we intend to expand the program to other Conservation Areas in the future.

Sharp-lobed Hepatica (Hepatica nobilis acuta) - one of the earliest woodland wildflowers.

EDUCATION PROGRAM UPDATE

For the past 30 years, CLOCA has delivered formal and informal education programs sharing our watershed story and inspiring our community to be watershed champions and take action for real change. Our suite of innovative education programs informs and raises awareness about the value of healthy watersheds, educating diverse audiences about CLOCA, what we do and who we are. With our partners, we continue to offer and support new environmental learning experiences and provide tools for children, youth, adults, families, new Canadians and seniors. We engaged 1,200 Grade 3 students at Farm Connections, 1,864 students in our Sugarbush Tours and 4,400 elementary students in the *In Your Watershed Program*. An additional 1,780 individuals were engaged in the broader community through a Farm Connections Open House, Summer Camps at the Robert McLaughlin Gallery and YMCA, and libraries in Whitby, Oshawa and Clarington.

COMMUNITY ENGAGEMENT SUMMARY

With our partners, CLOCA hosted 13 programs and events, provided 28 corporate and community presentations, attended 14 community events, delivered six curriculum-based education programs to 12,776 students, produced eight corporate communications products, engaged 1,212 volunteers and hosted 1,531 children in our summer camp program in partnership with the YMCA GTA.

28,903

CITIZENS REACHED

In total we reached 28,903 individuals across our watershed in 2019.

The 3rd Ajax Scouts build fencing to protect the woodlot at Lynde Shores Conservation Area.

OPERATE RESPONSIBLY

To be known as an exceptionally well-run and well-managed, financially sustainable, transparent organization.

Stephen's Gulch Conservation Area. Have you hugged a tree today?

OPERATE RESPONSIBLY

To be known as an exceptionally well-run and well-managed, financially sustainable, transparent organization.

Corporate Services includes general direction, coordination and implementation of all approved CLOCA programs and policies; member services, governance, financial management and reporting, budgets, corporate records, Geomatics and Information Management Systems, health and safety, human resources, payroll and administration support for all programs. In 2019, CLOCA updated our Personnel Policy and competed a pay equity and compensation review.

Through our Shared Services Agreement with four other Conservation Authorities, we continued to deliver our Conservation Authority Content Management System, Reference Library, vehicle bookings and other operational applications. We continue to work on our data portal implementation for staff, partners and the public providing a gateway for exploring and retrieving information about our watersheds. The intent of the portal is to allow users to explore and download data and use and build innovative apps to solve important local issues. We also provided extensive mapping services to internal projects including the Watershed Plan Updates, and the Natural Heritage Restoration Prioritization Model.

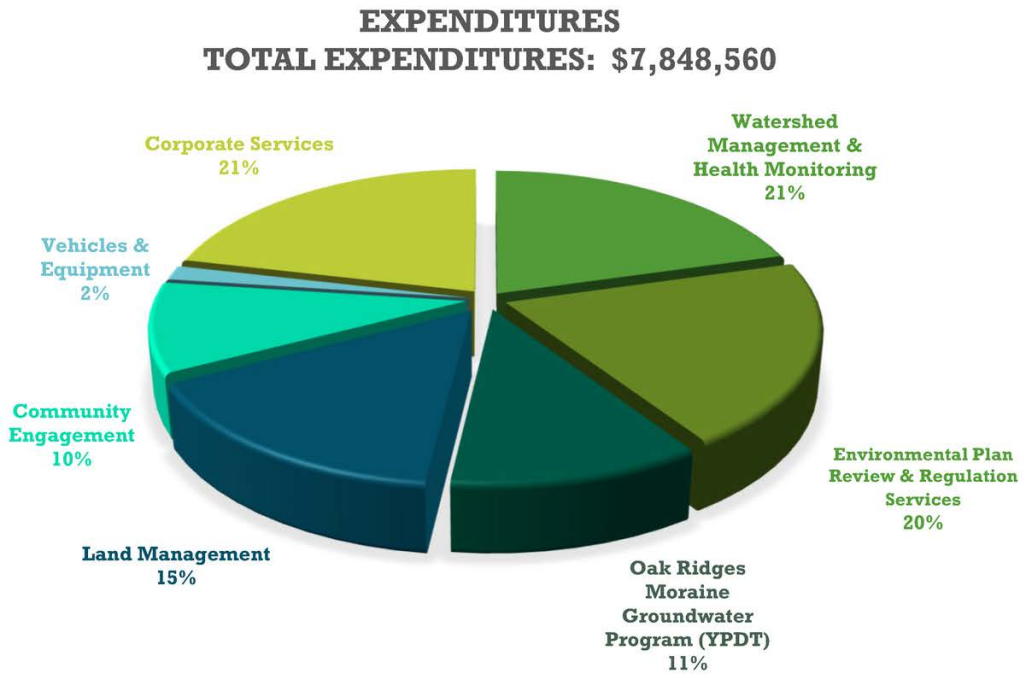
STRATEGIC PLAN UPDATE

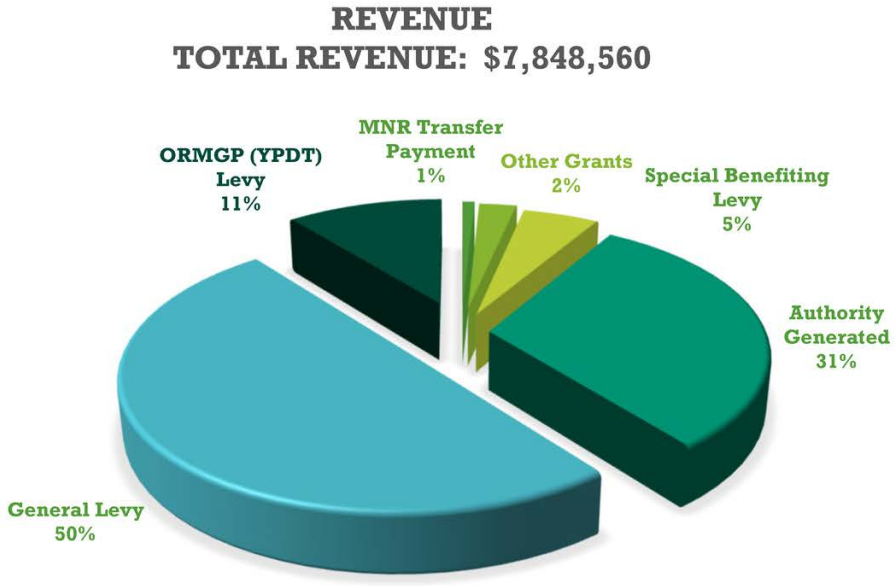
This year marked the fourth year of CLOCA's 2016-2020 *Strategic Plan*. Much progress has been made in delivering on the identified actions to support the goals of the *Strategic Plan*.

With 2020 being the final year of the current *Strategic Plan*, we look forward to updating the Plan and continuing to provide outcome-oriented, and measurable objectives and targets to guide our work into the future.

EXPENDITURES

The approved 2019 budget reflects an allocation of resources to support CLOCA's planned programs and services. The budget allowed us to continue our efforts in support of our mission to advance watershed health through engagement, science and conservation.





In which watershed do you live?

Central Lake Ontario CONSERVATION