
CENTRAL LAKE ONTARIO CONSERVATION AUTHORITY

2024 ANNUAL REPORT



Healthy watersheds for today and tomorrow.

About Central Lake Ontario Conservation Authority

Central Lake Ontario Conservation Authority (CLOCA) is a local, community-based, environmental organization and one of 36 Conservation Authorities responsible for managing watershed resources across Ontario. Established in 1958, CLOCA's jurisdiction is based on the watershed boundaries of four major watercourses and 24 minor watercourses draining an area of over 639 square kilometers. Our watershed stretches from the municipal boundaries of Ajax/Pickering to Clarington, and north, from Lake Ontario to the crest of the Oak Ridges Moraine. We provide a wide variety of science-based watershed management programs and services, delivered in partnership with our municipal partners, local landowners, environmental agencies and all levels of government. Our municipal partners include the Region of Durham, Cities of Oshawa and Pickering, Towns of Ajax and Whitby, Municipality of Clarington and Townships of Scugog and Uxbridge. The 2024 Annual Report is intended to provide a summary of accomplishments specific to the goals established in the Central Lake Ontario Conservation Authority Strategic Plan 2021-2025.

Our Vision and Mission

- **Vision:** Healthy watersheds for today and tomorrow.
- **Mission:** Advancing watershed health through engagement, science, and conservation.

Our Jurisdiction



Goal number 1

Conserve, restore and enhance natural resources through integrated watershed management.



Lynde Creek Watershed

Stream Habitat Assessment, Enhancement and Restoration Project

In the summer of 2022, CLOCA began to assess the viability of establishing a regular and cost-effective stream assessment and restoration program and took a significant step forward in 2023 with the launch of a pilot project specifically targeting streams situated within our Conservation Areas.

The pilot project involved two phases: a stream assessment aimed at identifying and prioritizing restoration opportunities, followed by the testing of various restoration techniques on priority sites. By the end of the summer, CLOCA had successfully surveyed 19 kilometers of stream habitat within its conservation areas and restored 160 meters of in-stream habitat. This initiative established collaborative partnerships with organizations such as the Department of Fisheries and Oceans (DFO), Ontario Streams, Miller Compost, and the City of Oshawa. The success of this pilot project also encouraged CLOCA to seek out external funding that would allow important work to continue, as such, CLOCA was successful in securing \$333,000 of federal funding over the next three years through DFO's Canadian Nature Fund for Aquatic Species at Risk.

This funding is focused on the restoration of critical habitat for Redside Dace and American Eel in Lynde Creek, emphasizing CLOCA's commitment to the ecological health of aquatic environments and the conservation of species at risk, which both contribute to achieving overall watershed health.

The funding will allow CLOCA to continue with the development of the stream assessment and restoration project through to 2026, with a focus on the Lynde Creek watershed. Using low-tech, process-based restoration techniques, the project will assess and rehabilitate degraded stream ecosystems, protect existing healthy streams from deterioration, and build climate change resilience in riverscapes. The work completed within this project will contribute to the goals and objectives outlined in Durham Region's Durham Community Climate Adaptation Plan and CLOCA's watershed plans and strategic initiatives.

Redside Dace,

Photo: Kathryn Peiman, TheNarwhal.ca



Integrated Watershed Monitoring Program

Findings from the 2023 Assessment

Now in its seventh year, CLOCA's Integrated Watershed Monitoring Program (IWMP) continues to play a vital role in evaluating the health of streams, forests, and wetlands within the watershed. The comprehensive data collected under the IWMP provides insights into the current state of our natural resources. A critical aspect is the symbiotic relationship between data-driven decision-making and proactive conservation measures. By leveraging our understanding of watershed conditions, we can strategically identify priority areas for land preservation, conservation, and restoration. These concerted efforts not only bolster the resilience of our ecological systems but also fortify our communities against the multifaceted challenges posed by urbanization and climate change. Through collaborative initiatives and informed action, we pave the way for a sustainable and thriving future. Additional information on CLOCA's IWMP and up-to-date results, are available on CLOCA's IWMP StoryMap: <https://storymaps.arcgis.com/stories/b78bd22aad7c4d7cb8c11d71e3f33ecd>

"A critical aspect is the symbiotic relationship between data-driven decision-making and proactive conservation measures. By leveraging our understanding of watershed conditions, we can strategically identify priority areas for land preservation, conservation, and restoration."

Climate

A range of meteorological data, including precipitation, air temperature, wind speed and direction, and barometric pressure, is diligently gathered to monitor and interpret climate trends within our jurisdiction. By comparing this local data with historical norms, we gain valuable insights into the evolving climate landscape and its impacts over time.

The data indicates that average daily temperatures consistently trended higher than the normal average by up to 4.4°C. These findings align with the global trend, as 2023 marked the hottest year on record. Notably, snow surveys conducted during the winter of 2022/2023 revealed a notable variability in snowfall patterns. The onset of the spring freshet occurred around the second week of March, indicative of shifting weather patterns. Overall, total precipitation for 2023 amounted to 471 mm, significantly below the historical average of 766 mm.

Consequently, the watershed experienced *Low Water Conditions – Level 1* for a substantial portion of the year, given the precipitation deficit falling below 80 per cent of the normal levels. These findings corroborate the predictions of Durham Region Climate modelling, which forecasts heightened variability in weather conditions throughout the year, alongside rising temperatures. This comprehensive data not only provides a snapshot of current climate trends but also underscores the imperative for proactive adaptation measures to mitigate the impacts of climate change.

Forest Health

Forest health is assessed through three key ecological attributes: breeding bird community, tree health and dead wood, and plant communities. Data on bird communities has revealed a continued decline in health scores since 2017. While this trend isn't statistically significant yet, it's being closely monitored should there be actions CLOCA can recommend locally to limit the decline.

Scores for tree health and dead wood have remained consistent with previous years, despite the numerous non-native diseases and pests impacting forests in Southern Ontario. Central Lake Ontario Conservation Authority's Invasive Species Monitoring and Management programs are of integral importance in safeguarding and improving forest health throughout the watershed. Through these initiatives, CLOCA engages in extensive invasive species mapping, which helps prioritize management efforts. Notable ongoing projects include Phragmites Biocontrol in Cranberry Marsh in partnership with the University of Toronto, management of Purple Woods' Garlic Mustard, and monitoring for the emerging threat of Hemlock Woolly Adelgid.

Stream Health

Stream health is evaluated through three ecological attributes: fish and invertebrate communities, and water quality. In the 2023 stream sampling, over 2,700 fish were captured, representing 28 different species. Blacknose Dace and Longnose Dace were the most common, while Mottled Sculpin and Rainbow Trout, sensitive coldwater species, followed closely, underscoring the vital role CLOCA streams play in their lifecycle. In 2023, benthic invertebrate sampling yielded 12,136 specimens, representing over 187 species, showcasing the area's significant biodiversity. Each species contributes uniquely to ecosystem services, emphasizing the importance of maintaining this diversity for resilience against future threats.

Water quality sampling in 2023 involved collecting 720 samples, with 76 per cent meeting recommended guidelines. Parameters such as Chloride, E. coli, Sulphate, and Total Phosphorus were most likely to exceed guidelines, with Chloride being of particular concern, exceeding provincial guidelines in 46 per cent of samples. Water quality scores fell into Good Health and Excellent Health categories. Conditions showed slight improvement trends observed over time.

With the funding CLOCA secured from the federal government for a new Stream Restoration Project in Lynde Creek, focusing on enhancing the ecosystem for the Redside Dace, a species at risk, bioengineering approaches will be employed to improve fish habitat and water quality, in collaboration with various partners. Additionally, CLOCA will conduct watershed stream assessments to identify and prioritize sites for restoration efforts.

Wetland Health

The health of coastal wetlands is closely monitored through the Durham Region Coastal Wetland Monitoring Program (DRCWMP), which oversees 18 wetlands within Durham Region. This comprehensive program assesses various factors including water quality, aquatic vegetation, fish, bird, and invertebrate communities to gauge the overall health of these vital ecosystems. While this work directly supports CLOCA's coastal wetland monitoring need and goals, the data is fed directly into Environment Climate Change Canada Great Lakes coastal monitoring data sets and, therefore, supports national level monitoring as well. Results from the monitoring program consistently indicate that most coastal wetlands are in poor to fair health, falling below the watershed plan goals set for these ecologically significant areas. Positioned at the lower end of the watershed, they bear the brunt of cumulative impacts resulting from changes in land use upstream in our watershed. Encouragingly, there is a positive trend showing a continued improvement in water quality, with four out of eleven coastal wetlands demonstrating increased scores. However, concerns persist, particularly regarding parameters such as Chloride and Total Suspended Sediment. Breeding bird health scores show a positive trajectory, reflecting improved habitat conditions that are attracting wetland bird species. These coastal wetlands serve as critical habitats for bird communities, as evidenced by the identification of over 1,200 birds, representing 52 species, including three species at risk, during CLOCA's monitoring in 2023. Fish community diversity was relatively low in 2023, with only 18 species identified out of 533 individuals caught, while invertebrate community monitoring recorded nearly 5000 individuals.

Despite remaining below watershed plan goals, there is a slow increase in invertebrate scores, which is promising given their critical role as food sources for wetland ecosystems. In efforts to enhance wetland conditions, CLOCA has collaborated with partners to develop the *Lynde Shores Conservation Area Resilience and Restoration Plan*. Drawing from insights gained through our coastal wetland monitoring program, this plan aims to safeguard the ecological, recreational, and cultural services provided by Lynde Shores Conservation Area. Through a comprehensive study, CLOCA and our external technical team have identified strategies to mitigate future climate change impacts, with planning underway for implementation in the near future.

Connecting Monitoring to Management

To ensure the ongoing relevance of monitoring programs, they must address key questions that deepen our understanding of ecosystems and provide practical insights for day-to-day operations at CLOCA and in collaboration with our partners. Maintaining robust connections between the IWMP and current management actions has been a top priority since the program's inception. The following information highlights these connections and underscores how IWMP data can inform various initiatives across CLOCA programs. Given the historical impacts and impending challenges posed by invasive species and climate change, proactive management is essential to safeguard the functionality and resilience of our ecosystems. Central Lake Ontario Conservation Authority takes an active stance in identifying and addressing ecological improvements within our protected lands, while also collaborating

with municipalities and private landowners to enhance overall ecosystem health. Central Lake Ontario Conservation Authority offers a diverse range of restoration services, including Stream, Wetland, and Grassland Restoration; Afforestation, Invasive Species Management, Urban Stewardship, Agricultural Best Management Practices, and Managed Forest Plans. These services are intricately informed by IWMP data and are aligned with various watershed planning action plans, such as the Riparian Corridors Action Plan and Wildlife Corridor Action Plan. Through this integrated approach, we strive to ensure that our management actions are rooted in sound scientific understanding and contribute to the long-term health and resilience of our watershed ecosystems.

Restoration Highlights in 2023/2024

Conservation Areas:

- Monitored and actively managed invasive species including Dog-Strangling Vine, Common Buckthorn, Phragmites, Garlic Mustard, and Autumn Olive.
- Performed maintenance activities at Lynde Shores Conservation Area, pruning and watering trees and cleaning up irrigation lines. Coordinated the planting of 4,330 tree seedlings to restore approximately 2.3 hectares at the Craig Tract at Long Sault Conservation Area
- Coordinated the planting of 3,750 tree seedlings to restore the understory of the forest at Long Sault Conservation Area (after the derecho storm damage caused in spring 2022).
- Coordinated the treatment of a large patch of Garlic Mustard at Purple Woods Conservation Area.
- Performed maintenance activities of an approximately one-acre Native Meadow Restoration project at Heber Down Conservation Area.

- Surveyed 19 kilometers of stream habitat within CLOCA Conservation Areas and restored 160 meters of in-stream habitat using novel bioengineering techniques.

Private Lands:

- Coordinated the planting, tending, and monitoring of 20,000 tree seedlings in 2023 on private lands through the 50 Million Tree Program in partnership with Forests Ontario.
- Coordinated Managed Forest Planning service to help private landowners apply to the Provincial Managed Forest Tax Incentive Program (MFTIP) and completed four new plans, one amendment and plan renewals for landowners.
- Worked closely with Durham Region and the other four Conservation Authorities within the Region to develop, fund, and promote a Durham Region-wide tree planting initiative – Durham Trees. Over 23,000 trees were planted as part of 14 projects in 2024.
- Coordinated CLOCA's portion of the Municipality of Clarington's Trees for Rural Roads Program, accounting for the planting of 110 trees along Clarington's rural roads within CLOCA's jurisdiction.

Funding and Partnerships:

- Coordinated tree-planting events in various Conservation Areas, engaging volunteers, community organizations, public agencies, private corporations, and municipal partners. In 2024:
 - Community Tree Planting Earth Day, in partnership with Ontario Power Generation at Bowmanville Westside Marshes Conservation Area = 500 trees

- Scouts Canada Tree Planting at Enniskillen Conservation Area = 300 trees
- Tree Canada/Audi Volunteer Tree Planting at Lynde Shores Conservation Area = 120 trees
- Tree Canada/LCBO Tree Planting at Lynde Shores Conservation Area = 120 trees

Geographic Information System (GIS)

- Developed a Restoration Tracking Tool that can now be used to input past and current Restoration projects and can be further enhanced to include potential future projects within its scope.

Central Lake Ontario Conservation Authority is hopeful that the positive effects of such restoration and stewardship activities will gradually be detected through the IWMP results as an overall improvement in watershed health.

*Earth Day 2024 Tree Planting
Bowmanville Westside Marshes Conservation Area*



Lynde Shores Conservation Area

Restoration and Resilience Project

The Lynde Shores Restoration and Resilience Project represents a critical endeavour to address the pressing challenges confronting the Lynde Creek Marsh and Cranberry Marsh within the Lynde Shores Conservation Area. It stems from extensive historical monitoring conducted by CLOCA through the Durham Region Coastal Wetland Monitoring Project (DRCWMP). These monitoring efforts have documented a trend of deterioration within the marsh ecosystems. This decline, attributed to climate stressors, invasive species encroachment, pollution, and human activities, underscores the urgent need for concerted conservation efforts. Lynde Shores Conservation Area is important ecologically, recreationally, and culturally, but will not remain so without intervention.

Partnering with Environment and Climate Change Canada (ECCC), CLOCA embarked on a collaborative process to develop comprehensive strategies to enhance wetland resilience against escalating climate change impacts. Climate change projections indicate a future characterized by more frequent and severe environmental stressors, including extreme temperatures, fluctuating water levels, and increased precipitation.

These changes pose significant challenges to the resilience of coastal wetlands, necessitating proactive measures to mitigate their adverse effects. Integrating scientific research, community engagement, and strategic planning, this multifaceted approach aimed to address the complex interplay of ecological, social, and environmental factors influencing the marsh ecosystem.

Through this project, a comprehensive set of restoration strategies was developed and tailored to the unique needs of the Lynde Shores Conservation Area. Drawing upon the latest scientific research and conservation best practices, these strategies aim to enhance the resilience of the marsh ecosystems, restore degraded habitats, and promote long-term sustainability through the use of Nature-Based Solutions.

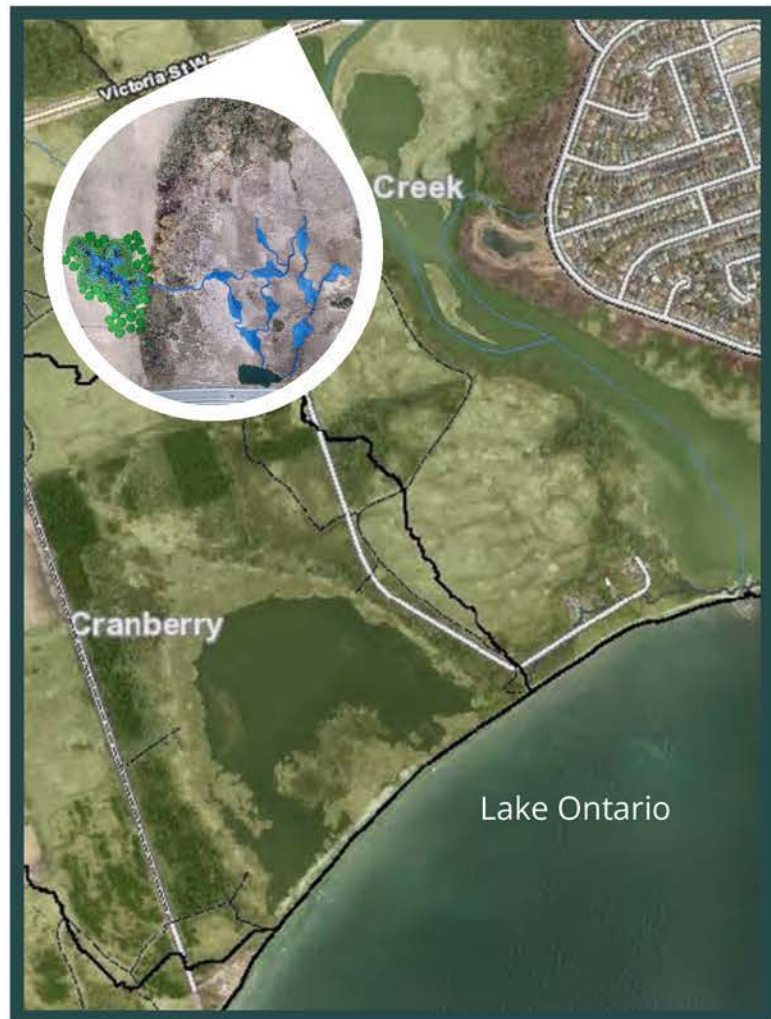
Central Lake Ontario Conservation Authority is working with various partners to secure the funds required to implement these strategies and secured \$2,177,000 from ECCC over the next four years through The Great Lakes Freshwater Ecosystem Initiative. This funding aims to address significant environmental challenges affecting Great Lakes water quality and ecosystem health, aligning with Canada's commitments under the Great Lakes Water Quality Agreement. A primary focus is restoring and protecting critical coastal wetlands from climate change impacts. Central Lake Ontario Conservation Authority has used data from its long-term monitoring programs to plan for enhanced resilience in these areas and will now implement these plans with the new funding. The Lynde Shores Conservation Area Restoration and Resilience Project was selected by ECCC due to CLOCA's thorough background work, partnerships, and the area's importance for both ecology and community.

The first strategy to be implemented under the Lynde Shores Conservation Area Resilience and Restoration Project will be creating more water channels and open water areas within the Lynde Creek marsh through excavation, which will quickly introduce more wetland interspersed within the marsh. Collaborating with Ducks Unlimited Canada (DUC), a design was devised that harmonizes aquatic and cattail habitats, drawing on DUC's extensive experience executing similar projects across Ontario. The proposed work involves excavating 475 meters of wetland channels and creating four one-acre, open water areas north of Victoria Street at Lynde Shores Conservation Area.

This strategy addresses critical environmental challenges affecting Great Lakes water quality and ecosystem health. Our objectives for this first-phase strategy include:

- Mitigating the impacts of Lake Ontario water level regulation on wetland function.
- Addressing the spread of non-native species, particularly the hybrid cattail *Typha x Glauca*.
- Enhancing biodiversity and habitat quality to support diverse species.
- Improving overall water quality in the area.

This work is scheduled to begin in January 2025. Additional strategies are scheduled to begin later in 2025. For more details on the Lynde Shores Conservation Area Restoration and Resilience Project, visit <https://www.cloca.com/lynde-shores-restoration>



Fish Barrier Removal

Cullen Central Park in the Lynde Creek Watershed

The historical concrete instream fish barrier was a low-level, concrete tractor crossing located within the Cullen Central Park in Whitby, formerly Cullen Gardens. The barrier prevented the movement of fish during their various life cycles and represented a high-priority restoration opportunity. The removal of this barrier is identified within CLOCA's *Barrier Action Plan*, which is a component of the *Lynde Creek Watershed Plan (2020)*.

Instream barriers may be any type of water control structure, culvert, or weir that obstructs or limits fish movement from accessing habitat or causes fish to congregate at the base of the barrier for prolonged time periods. Not only do instream barriers have direct effects on fish, they also affect water quality and habitat conditions within the stream.

Lynde Creek is home to approximately 30 fish species, including Redside Dace which is a species at risk. Instream barriers are identified as Threats within the Federal Redside Dace (*Clinostomus elongatus*): Recovery Strategy and Action plan 2024, under the *Species at Risk Act* (S.C. 2002, c.29) (SARA).

The barrier was removed during August 2024, which was the ideal time for in-water work to occur in coldwater streams due to the low water levels experienced during the summer and it being a less sensitive time for fish.

The removal of this historical barrier in Lynde Creek supports Critical Habitat for Redside Dace, re-connects upstream and downstream fish communities, and is complimentary to the goal of achieving a healthy Lynde Creek Watershed.

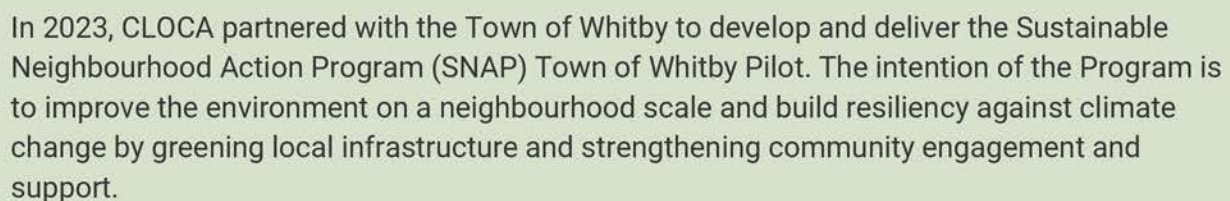
Historical barrier before it was removed; low-level, concrete tractor crossing located within the Cullen Central Park in Whitby, formerly Cullen Gardens. Structures such as this create conditions that lack complex flow, making it very difficult for fish to navigate past.



Historical barrier location (within the Cullen Central Park in Whitby) after it was removed and the creek restored. All jumping (e.g., salmon and trout) and non-jumping fish (e.g., Redside Dace, suckers) will be able to migrate up and down this section of Lynde Creek to carry out their various life stages.



Town of Whitby Pilot Project: Neighbourhood Selection



Central Lake Ontario Conservation Authority's willingness to undertake this strategic work was considered an opportunity for the Town of Whitby, Durham Region, and CLOCA to achieve goals and objectives outlined in their respective climate action and watershed health related plans. The new program and collaboration was also seen as an opportunity to realize a range of other cobenefits, including the opportunity for CLOCA to develop expertise and capacity in a new program/service area that aligns well with strategic priorities and that can be offered to other area municipalities in the future.

Using the SNAP's model of a multi-objective approach, several environmental and climate priorities can be informed and addressed in a way that can deliver significant social and economic benefits in the selected neighbourhood. The collaborative approach aims to build implementation partnerships and capacity in local leaders for sustained action. Specific priority objectives have been identified under the following themes for this project:

- Urban forest enhancements
- Improved stormwater management
- Energy efficiency and GHG emission reduction
- Infrastructure renewal
- Human health outcomes
- Reducing heat stress related to un-natural heat waves
- Supporting populations at risk in response to the impacts of climate change
- Community building through engagement

The Whitby SNAP Pilot will require meaningful engagement of the community and implementation partners throughout the various stages of the project.

To support this, the Whitby SNAP Pilot will integrate innovative approaches as well as lessons learned from other successful SNAP engagement programs implemented across the Greater Toronto Hamilton Area (GTHA).

Neighbourhood Selection Process

As an initial step toward selecting a neighborhood for the Whitby SNAP Pilot, Town of Whitby staff identified three candidate neighbourhoods based on corporate documents and their knowledge of opportunities to meet the sustainability objectives of the SNAP model. Total populations and geographical areas were also comparable to other implemented SNAP neighbourhoods across the Greater Toronto and Hamilton Area (GTHA).

A Whitby SNAP Pilot Screening Analysis was developed by CLOCA and applied to the three candidate neighborhoods: West Lynde, Fallingbrook and Meadowcrest. This Screening Analysis incorporates a fair and equitable comparison of high-level data specific to existing conditions and circumstances within each candidate neighbourhood in order to identify one priority neighbourhood. Six sustainability categories were used to incorporate and assess information about building age, infrastructure and mobility, flood safety and erosion risk reduction, natural environment and watershed systems, parks recreation and culture, and finally human health and wellbeing.

Priority Neighbourhood

One neighbourhood, West Lynde, scored higher than the other two neighbourhoods as a result of its alignment with planned projects, environmental, social and

economic challenges and opportunities and strategic priorities that were identified in the documents that were used to support the development of the Screening Analysis. The scoring approach used a high, high-medium, medium or low point scoring system for the 42 indicators applied to the three neighbourhoods, with consideration for issue severity and potential ability of the Whitby SNAP Pilot to support climate change adaptation and/or mitigation outcomes. Based on the screening and selection process and in close consultation with Town of Whitby staff, it was recommended that the Whitby SNAP Pilot project be delivered in the West Lynde Neighbourhood.

Key Issues and Opportunities

- Urban forest planting priorities and opportunities to strengthen watershed health, regional biodiversity, and climate resilience as identified by the Town of Whitby *Phase 1 Resilience Plan* and *Phase 2 Climate Change Mitigation Plan*, *Region of Durham Community Climate Adaptation Plan*, and CLOCA's *Lynde Creek Watershed Management Plan* and supporting Action Plans.
- Stormwater management improvements to improve water quality and support ecologically significant groundwater recharge areas as identified in the *Lynde Creek Watershed Management Plan* and to mitigate urban flood risk as identified in *Durham's Urban Flood Vulnerability and Risk Assessment Study*, the Town of Whitby *Lynde Creek Master Drainage Plan* and the *Whitby Bridge and Culvert Master Plan*.
- Home energy retrofit priorities (due to the high energy use of homes built prior to the 1980s and opportunity to support the implementation of the Durham Greener Homes Program.
- Sustainability initiatives to complement the downtown, transit linkages, local and regional hubs, connection to the Lynde Creek and its associated Provincially Significant Wetland.
- Priorities for action and co-benefits associated with childhood and teenage health issues, asthma, cardio-vascular health among adults, and falls among seniors (Durham Region Health Neighbourhoods – Building on Health in Priority Neighbourhoods, 2015).
- Reduce the effects of urban heat islands and associated risk of heat stress as shown in *Keeping our Cool, Managing Urban Heat islands in Durham Region 2018*.
- Presence of vulnerable populations due to higher proportion of low-income residents, newcomers to Canada, higher levels of unemployment, and a higher population of seniors.
- Opportunity to define a sense of place for this evolving neighbourhood by recognizing its aging infrastructure, its potential as a self-sufficient community that aligns well with an '8 to 80' concept—that if everything we do in our urban environment is great for an 8 year old and an 80 year old, it will be better for all people.
- Presence of schools, Whitby Library (just on edge of boundary) and parks suggests an opportunity for engagement and community partnerships in action.
- Total population comparable to other implemented SNAP neighbourhoods across the GTHA.

For Program updates, please visit <https://www.cloca.com/snap>

engagement, and data management that support data-driven resource management.

Together, these principles guide CLOCA's efforts to maintain ecological health and community well-being throughout its watersheds.

Program Effectiveness

Several key themes were identified by CLOCA that could impact program effectiveness over time, including:

- **Climate Change:** Rising temperatures, altered precipitation patterns, and increased flooding risks affect multiple areas of CLOCA's work. Programs are being adapted to enhance climate resilience, yet continuous improvement is necessary.
- **Population Growth and Urbanization:** With expected population increases of around 50 per cent by 2051 in the watershed, managing urban growth in a sustainable manner will become even more challenging, so a concerted focus on integrated watershed management will become even more critical.
- **Resource Needs:** Effective program delivery depends on stable funding and adequate staffing. Ensuring these resources will enable CLOCA to respond effectively to watershed needs.

To address these challenges, CLOCA has outlined actions to improve service delivery, such as strengthening partnerships with municipal governments, maintaining up-to-date watershed management planning work, and investing in climate adaptation measures and associated programming.

Strategy Review and Future Updates

To ensure CLOCA's programs and services remain effective and responsive to changing conditions, the *Watershed-based Resource Management Strategy* will be reviewed and updated every 10 years. This cycle will allow CLOCA the opportunity to incorporate new scientific and community knowledge, address evolving environmental and community needs, and refine its strategies in alignment with emerging best practices in watershed management.

Public Consultation and Publication

Transparency and public input are integral to CLOCA's watershed management work. The CLOCA Board-approved *Strategic Plan* and *Watershed Plans*, which directly shaped the *Watershed-based Resource Management Strategy*, were all previously developed following extensive municipal, public and stakeholder consultation. Public consultation for this Strategy was carried out in the Fall of 2024. A draft version of the strategy was posted on CLOCA's website for public review, and reviewers were invited to complete a survey to share comments and concerns.

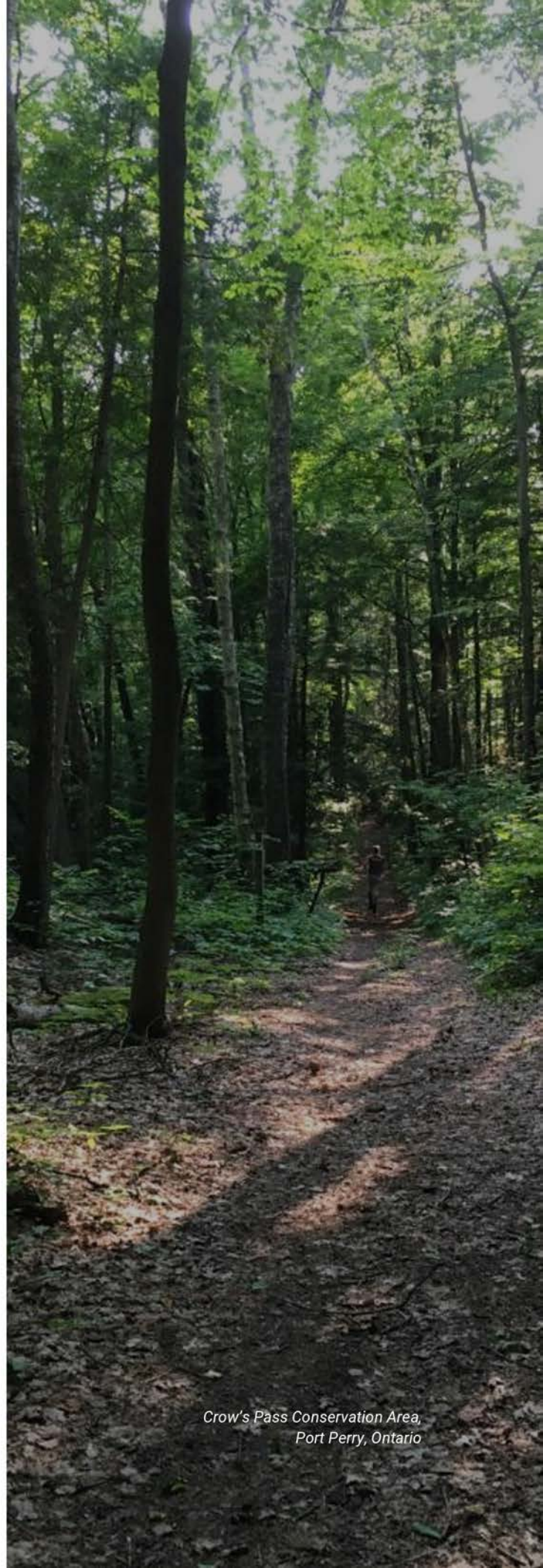
By balancing regulatory compliance, community needs, and sustainable development, CLOCA is well-positioned to support the ecological and social resilience needs required within its watershed now and in the future. This Strategy underscores CLOCA's commitment to continuous improvement, strategic resource management, and achieving a vibrant, healthy watershed community. The final Strategy document is available at: <https://www.cloca.com/governance/conservation-authorities-strategies>

Conservation Area Strategy and Land Inventory

Provides an integrated, high-level framework for the conservation, management, and enhancement of all conservation lands owned or controlled by CLOCA.

Ontario Regulation 686/21 (O. Reg. 686/21), enacted by the Government of Ontario in 2021 as part of updates to the *Conservation Authorities Act*, mandates that Conservation Authorities prepare and complete a Conservation Area Strategy and Land Inventory by the end of December 2024. The Strategy provides an integrated, high-level framework for the conservation, management, and enhancement of all conservation lands owned or controlled by CLOCA.

The Strategy, which was consulted on extensively under its initial working title of *Conservation Land Master Plan* and more recently in the fall of 2024, is meant to consider all aspects of CLOCA's Conservation Land management work and guide all related programs and services into the foreseeable future.



*Crow's Pass Conservation Area,
Port Perry, Ontario*

Central Lake Ontario Conservation Authority owns and manages approximately 2,924 hectares of conservation land, encompassing natural heritage features, sensitive ecosystems, water resource features, ecological corridors, natural hazard lands and a wide range of ecological services essential to regional biodiversity, public safety and watershed health. These lands play a vital role in enhancing the local ecosystem, while also offering public recreational spaces and access to nature that support broader mental and physical health within the community. The Conservation Lands ensure long-term protection of these community assets, providing a stable base for ecological functions and monitoring, supporting climate adaptation, and creating natural spaces that contribute to community health.

In line with Ontario Regulation 686/21, CLOCA's Conservation Area Strategy establishes a strategic framework for future land conservation efforts and acknowledges the increased pressures of urban growth and climate change. This Strategy builds on CLOCA's 2021 Strategic Plan, aligns with CLOCA's long-term goals for healthy watersheds, and reflects input from municipal partners, First Nations' communities, and the public, which was gathered through an extensive engagement process. These foundational inputs have shaped a high-level framework that balances conservation and watershed health needs with community access, engagement and education.

The Strategy considers several external pressures and emerging opportunities that will continue to shape CLOCA's Conservation Land programs and services, including Population Growth and Land Use Change, Climate Change Adaptation and Funding Needs.

The Conservation Area Strategy is structured around four guiding principles, each with specific strategic objectives and actions/deliverables. These Guiding principles align with CLOCA's broader mandate and are the pillars of CLOCA's approach to conservation land management:

1. **CONSERVE:** Conserve, Understand, and Enhance natural and cultural heritage assets within CLOCA's Conservation Lands.
2. **SECURE:** Secure and Grow the network of regionally important Conservation Lands in step with population growth and land use change to protect connected natural heritage and water resource systems, protect public safety from natural hazard lands, protect cultural heritage assets and actively contribute to watershed health and community resilience.
3. **CONNECT:** Nurture and inspire community Connections and Engagement with nature by using Conservation Lands as the venue where thoughtful access, programs, services, and partnerships unfold.
4. **LEAD:** Be a local Leader in greenspace conservation by updating/improving internal practices and processes for land management, and by setting a high standard for the management of CLOCA Conservation Lands that serves as a model for other local greenspace managers.

The Strategy outlines a comprehensive series of actions and deliverables that will guide CLOCA's Conservation Land conservation efforts, public access and engagement in the years ahead. These actions respond to identified environmental pressures, organizational priorities, and community needs.

Land Inventory

Ontario Regulation 686/21 Section 11 outlines the required (mandatory) information of the Land Inventory. Conservation Ontario convened a working group to develop a standardized approach and set of definitions to apply to the Land Inventory. The *Proposed Standard Approach to the Conservation Authority Land Inventory* developed through this process provides details on mandatory information to be included as per the Regulation, as well as additional common fields of optional information that support Conservation Authority land management and information sharing. The Land Inventory will be reviewed on an annual basis.

The Conservation Area Strategy provides a comprehensive, adaptive framework that will guide CLOCA's conservation land management for the foreseeable future. The Strategy and the Land Inventory reflects CLOCA's commitment to achieving healthy watersheds, promoting climate resilience, and creating accessible, sustainable natural spaces for the community.

Through strategic land acquisitions, enhanced visitor experiences, and strong partnerships, CLOCA is well-positioned to meet many of its conservation and community engagement goals through the management of its Conservation Lands. The Strategy is designed to be flexible, supporting continuous improvements in response to emerging environmental pressures and community needs.

Both of these documents can be found at <https://www.cloca.com/governance/conservation-authorities-strategies>



Lynde Shores Conservation Area,
Whitby, Ontario

Oak Ridges Moraine Groundwater Program



Central Lake Ontario Conservation Authority continues to oversee and administer the Oak Ridges Moraine Groundwater Management Program (ORMGP), a multi-agency, collaborative program that oversees the collection, analyzing, and dissemination of water resource data and insights as a basis for effective decision-making and stewardship of water resources across a broad swath of south-central Ontario. The Program continues to improve upon our understanding of groundwater resources on and around the Oak Ridges Moraine, a regional glacial feature and source of drinking water for over 200,000 people in the Greater Toronto Area.

A coalition of 15 government agencies, and 20 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 Hamilton area 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. Central Lake Ontario Conservation Authority, like other agencies, looks to the program to provide the regional geological and hydrogeological context for their ongoing technical studies and management initiatives.

The year 2024 was important for the ORMGP with lots of effort focused on a new website for the program. The new website (<https://www.oakridgeswater.ca/>) offers a much cleaner look and more straightforward ways to find data, interpretations and supporting documentation. Throughout 2025, continued upgrades will be made to the website and exploration of new ways (e.g., social media, presentations, etc.) to make the program more effective.

Highlights from 2024 include:

- Establishing a relationship with the Groundwater Project, an initiative of eminent Canadian hydrogeologist, Dr. John Cherry.
- Development of an innovative pilot water budget recharge runoff model that is optimized to allow for very quick run times. The model, considered to be an integrated groundwater/surface water model, simulates high resolution hydrological processes over the regional ORMGP area, including the estimation of groundwater recharge distribution.
- Enhancement of subwatershed delineation mapping to incorporate recent climate and streamflow data, as well as

land use and surficial soils
characterization of the contributing area
to any selected subwatershed
(<https://owrc.shinyapps.io/sHySpatialAnalysis/>).

- Prepared (and made available on the ORMGP Mapping portal) new draft maps of the Water Table and the Bedrock Surface Topography (to be finalized in 2025).
- Added a new Particle Tracking data snapshot (<https://owrc.github.io/interpolants/modeling/particleTracking/>) to the website (the interactive particle tracking map can be found at <https://owrc.shinyapps.io/ptrack/>)
- Assisted Kawartha Conservation in preparing a water budget analysis for the Lake Dalrymple drainage area.

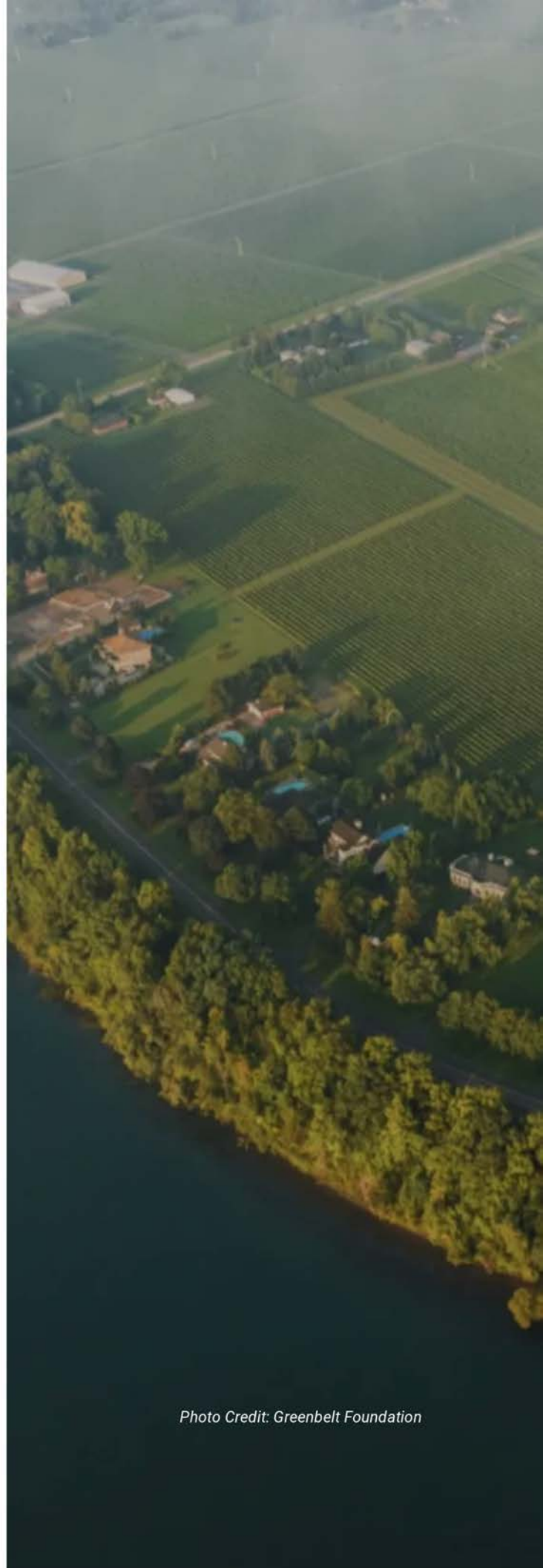


Photo Credit: Greenbelt Foundation

Goal number 2

Support healthy communities and the protection of people and property from flooding and erosion.



Cedar Crest Beach Road, Bowmanville, 2019

New Conservation Authorities Act Requirements

Regulations and Implementing CLOCA Policy and Procedures for Land Use Planning and Regulation

On February 16, 2024, the Ministry of Natural Resources and Forestry issued a 'Decision Notice' on the Environmental Registry of Ontario of the provincial government's decision to move ahead with regulatory changes under the *Conservation Authorities Act*. Also on February 16, a new regulation, *Ontario Regulation 41/24, Prohibited Activities, Exemptions and Permits*, was filed by the government. Both the new *Conservation Authorities Act* provisions and associated Ontario Regulation 41/24 came into force and effect on April 1, 2024. The *Conservation Authorities Act* provisions that came into force on April 1 are within Part VI, *Regulation of Areas Over Which Authorities Have Jurisdiction* and within Part VII, *Enforcement and Offences*. This draft of new legislation and regulation related to the *Conservation Authorities Act* is unprecedented since the original passage of the Act in 1946 and follows a series of four Bills introduced in the Legislative Assembly of Ontario over the past seven years that have amended the *Conservation Authorities Act* and

changed the regulation-making powers of the provincial government, amongst other things, in relation to Conservation Authorities:

- Bill 139, *Building Better Communities and Conserving Watersheds Act*, 2017, received Royal Assent on December 12, 2017;
- Bill 108, *More Homes, More Choice Act*, 2019, received Royal Assent on June 6, 2019;
- Bill 229, *Protect, Support and Recover from COVID-19 Act (Budget Measures)*, 2020, received Royal Assent on December 8, 2020; and finally,
- Bill 23, *More Homes Built Faster Act*, 2022, received Royal Assent on November 28, 2022.

New Part VI of the *Conservation Authorities Act*

The new Part VI of the Act covers the revised regulatory powers Conservation Authorities will have in their watersheds related to watercourses, wetlands, and development activities. Of key importance, this includes setting out what activities are subject to a prohibition in law.

New Part VII of the *Conservation Authorities Act*

The new Part VII of the Act covers the enforcement and offences' powers Conservation Authorities now have as of April 1, 2024. Specific provisions include the appointment of officers, entry without and with warrants (a very rarely used practice), searches, a new power to issue "stop orders" in certain instances, offences, a two-year limitation period for filing charges, and the power of the Court to issue rehabilitation orders.

New Regulation: Ontario Regulation 41/24

The new Ontario Regulation 41/24 replaces CLOCA's individual Conservation Authority regulation, Ontario Regulation 42/06, *Central Lake Ontario Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*, which has been in place since February 17, 2006. Instead of 36 individual Conservation Authority regulations made under the Act, all 36 Conservation Authorities will utilize Ontario Regulation 41/24 for regulation under Part 6 of the Act. Ontario Regulation 42/06 is to be revoked.

The coming into force on April 1, 2024, of Parts VI and VII of the *Conservation Authorities Act* and a new province-wide development regulation through Ontario Regulation 41/24 represents the most change that has ever taken place to the land use planning and regulation functions of Conservation Authorities. It is hoped that we will now move to a phase of local implementation and stability under the new statutory framework with no further changes to the Act, regulations, or policy, in the near to medium term.

Additional details can be found in CLOCA's Board Meeting Agenda of March 19, 2024, Report #5870-24 at <https://www.cloca.com/board-of-directors>



Erosion of unstable bank,
within CLOCA's jurisdiction

Delegation of Permit Approvals, Cancellations and Administrative Reviews

New provisions of the Ontario Regulation 41/24 allow for the delegation of certain powers related to permits and administrative reviews.

On April 1, 2024, new provisions of the *Conservation Authorities Act* came into effect. Some of the new provisions associated with the new Ontario Regulation 41/24 allow for the delegation of certain powers related to the issuance of permits, administrative reviews and cancellation of permits. The *Act* had previously allowed for the delegation of non-complex permits:

- Permissions that are consistent with the approved CLOCA Policy and Procedural Document for Regulation and Plan Review;
- Permissions that are for a time period of two years or less;
- Permissions for extensions, provided the extension does not extend the timeframe beyond two years; and,
- Permissions where the applicant agrees to the conditions.

The re-delegation of staff delegation for non-complex permits is required to reference the new sections in the *Act* and the new Regulation 41/24 and to recognize the ability to issue permits having a period of validity to 60 months (previously the maximum was 24 months).

Permit Cancellation

The new delegation provisions under Section 28.4 of the *Act* allows for the delegation of the cancellation of permits or the holding of hearings in relation to a refusal of a permit, to the Conservation Authority's executive committee or to any other person or body. A permit may be cancelled if conditions have not been met. A Conservation Authority must provide notice and opportunity for a hearing. If a hearing results in cancellation, the applicant may appeal the decision to the Ontario Land Tribunal.

Request for Administrative Review

Under the new regulatory framework, permit applicants may request a review by the Conservation Authority if (a) the applicant has not received notice from the Conservation Authority within 21 days regarding the completeness of an application, (b) the applicant disagrees with the Conservation Authority's determination that the application for a permit is incomplete; or (c) the applicant is of the view that a request by the Conservation Authority for other information, studies or plans is not reasonable.

Requests for Reconsideration of Fees Charged

Under the new legislative framework, new provisions related to fee appeals states that if a Conservation Authority receives a request for reconsideration of a fee charged for an application for a permit made under subsection 28.1 (2), the Conservation Authority shall make its decision within 30

days after receiving the request. If the Conservation Authority fails to reconsider a fee within 30 days of receiving the request, the person who made the request may appeal the amount of the fee directly to the Ontario Land Tribunal.

Central Lake Ontario Conservation Authority's Board of Directors delegated CLOCA to approve permissions under Ontario Regulation 41/24 to staff for permit applications which:

- are not a significant departure from the approved CLOCA Policy and Procedural Document for Regulation and Plan Review;
- are for a time period of 60 months or less;
- are for permit extensions that do not extend the timeframe beyond 60 months; and,
- the applicant agrees to the conditions of the permit.

Delegation of permissions has been granted to CLOCA staff appointed as Enforcement Officers under Ontario Regulation 41/24.

Delegation to cancel a permit issued under Ontario Regulation 41/24 has been granted to CLOCA's Chief Administrative Officer.

Delegation to conduct an administrative review under Section 8 of Ontario Regulation 41/24 has been delegated to CLOCA's Director of Planning and Regulation.

Tributary reinforcement construction



Robinson and Tooley Creek Flood Mitigation Study

Future urbanization could cause an increase in regulatory flood levels through the watershed.



The completed Robinson and Tooley Creek Flood Mitigation Study includes a background review, hydrologic and hydraulic modelling updates, a spills analysis, an evaluation of flood mitigation alternatives, a proposed flood mitigation strategy and updated Floodplain Maps for both Robinson and Tooley Creeks.

The Robinson and Tooley Creek Subwatershed Study (SWS), completed in 2023, assessed urban expansion in the Southeast Courtice and the Courtice Employment Lands and Major Transit Station Area Secondary Plan areas, and predicted that future development would result in an increase in peak flow rates in Tooley Creek during the Regulatory storm event. This finding suggests that future urbanization could cause an increase in regulatory flood levels through the watershed.

There were also two locations where flooding “spilled” between the Tooley and Robinson Creek watersheds. These unevaluated spill areas required further analysis to refine the flood limits by determining the extent and final outlet of the spill flows. A flood mitigation study was recommended to better define the future flood impacts on Tooley and Robinson Creeks and evaluate different alternatives to mitigate the potential impacts of future urbanization. TY Lin International Canada Inc. was retained to complete the Flood Mitigation Study.

The completed Robinson and Tooley Creek Flood Mitigation Study includes a background review, hydrologic and hydraulic modelling updates, a spills analysis, an evaluation of flood mitigation alternatives, a proposed flood mitigation strategy and updated Floodplain Maps for both Robinson and Tooley Creeks, and was funded by the Municipality of Clarington. Updated floodplain maps were requested and funded by CLOCA.

The updated floodplain mapping did not result in significant changes to the extent of the regulatory floodplain within the Robinson Creek watershed.

A reduction in flooding on the main branch of Tooley Creek between Highway 401 and Bloor Street was found based on a flow spill analysis. The study provided new flooding limits for the low-lying area north of Highway 401 between the main branches of the Robinson and Tooley Creeks which was previously unmapped.

Floodplain limits for the West Tributary of Tooley Creek in the vicinity of Down Road were found to be more extensive than previously modeled. Finally, the study recommended a flood mitigation strategy which includes requiring flood control facilities for development within the Southeast Courtice Secondary Plan Area. These flood control facilities will mitigate the impact of the planned urbanization within the watershed.

Property owners within the floodplain were notified of the study findings through a direct mailout from the Municipality of Clarington. The final report is available on the Municipality of Clarington’s website (www.clarington.net/RTSubwatershed).

Planning and Regulation

Central Lake Ontario Conservation's Authority's Planning and Regulation responsibilities focus on protecting people and property from natural hazards of flooding and erosion.

The Planning and Regulation department directs new development away from natural hazards. In 2024, staff provided environmental planning advice on numerous remote pre-application consultation meetings with landowners, developers, and municipal planning department staff.

219

permits issued for various development activities, under Ontario Regulation 41/24.

706

different technical submissions from municipalities, consultants and landowners were reviewed.

7,930

documents were entered into CLOCA's electronic records management system for efficient retrieval and archiving.

91

pre-application consultation meetings were held with development proponents to help them understand requirements and submit future applications.

Goal number 3

Protection, management, and safety of Conservation Areas.



Enniskillen Conservation Area
Photo by Dianne Zarobiak

Land Acquisitions

Continuing to grow CLOCA's existing Conservation Areas through additional land acquisition is required to ensure that they can sustainably accommodate public access, while still supporting their primary ecological functions.

Central Lake Ontario Conservation Authority's Conservation Areas are important and valued natural and community assets. They underpin the regional greenspace system and provide valuable ecological goods and services that contribute to the maintenance of both watershed and public health. Public access to our Conservation Areas continues to grow at significant rates.

Continuing to grow our existing Conservation Areas through additional land acquisition is required to ensure that they can sustainably accommodate public access, while still supporting their primary ecological functions. These landholdings are critical to achieving healthy watersheds and climate change resiliency and contribute to overall public and community health.

Long Sault Conservation Area: 3029 Regional Road 20 – Part lots 3 and 4, Concession 8, Darlington, Municipality of Clarington

This represents an ecologically important 61-hectare +/- parcel of land as an additional land holding to the Long Sault Conservation Area. Long Sault Conservation Area, located in the northern portion of Clarington in the heart of the Oak Ridges Moraine, includes mature forest, plantation, wetland, and meadow and has more than 18 kilometres (km) of marked trails that wind throughout the property. This area is considered a regionally important core wildlife area because of the diversity and size of the habitats that it contains.

The subject parcel makes up some of the highest quality headwaters of the Soper Creek watershed and is within CLOCA's Natural Heritage System. Natural areas such as this parcel are also important in mitigating climate change impacts downstream and across the Region of Durham. Continued protection of these areas is important, particularly as the Region continues to urbanize. These natural areas help to regulate groundwater and surface water resources, reduce summer temperatures, offer carbon sequestration, support biodiversity and pollinators and help to reduce downstream erosion and flooding.

This property lies at the perimeter of the Long Sault Conservation Area Primary Land Acquisition Target Area as identified in CLOCA's Board-approved Land Acquisition Strategy and is strategically located between both Long Sault Conservation Area and the CLOCA owned Canecrest Tract just 1 km to the south. Parcels such as this one that are strategically located in close proximity to the existing Long Sault Conservation Area boundaries, are large in size, and that contain

a range of natural heritage and source water protection features have been identified in this strategy as priorities for acquisition. The acquisition of this parcel will result in the unique opportunity to protect a significant environmental area and will increase the overall size of Long Sault Conservation Area, ultimately making it more sustainable for public access.

The acquisition of this property meets the objectives of the *Durham Regional Official Plan* as this property:

- was purchased for conservation purposes;
- contributes to the enhancement of the Regional Official Plan Greenlands System outside of urban areas;
- contains key natural heritage and/or key hydrological features; and
- supports the long-term planning and growth management of the Region.

Central Lake Ontario Conservation Authority was successful in being awarded funding from the Federal Nature Smart Solutions Ecosystem Protection Fund towards the acquisition of this parcel.

Long Sault Conservation Area: Cowan Property, Part lot 10, Concession 10, Municipality of Clarington

Represents an ecologically important 17.2 hectare +/- parcel of land as an additional land holding to the Long Sault Conservation Area. The parcel lies on the north side of the unopened Concession 10 road allowance. The property is fully forested by predominantly native hardwoods with some conifer plantation intermixed and contributes directly to the surrounding Long Sault Forest, which is considered to be a unique “large forest” area as a result of its substantial contiguous forest cover.



The property lies at the crest of the Oak Ridges Moraine, providing source water functions to both the Bowmanville Creek watershed to the south, and the East Cross Creek watershed to the north. This parcel along with those in and around Long Sault Conservation Area feature prominently in core natural heritage systems. Continued protection of these areas is important, particularly as the Region continues to urbanize. These natural areas help to regulate groundwater and surface

water resources, moderate ground surface temperatures, offer carbon sequestration, support biodiversity and pollinators and help to reduce downstream erosion and flooding.

This property lies within the Long Sault Conservation Area Primary Land Acquisition Target Area as identified in CLOCA's Board-approved Land Acquisition Strategy and is strategically located adjacent to other adjacent Long Sault Conservation Area parcels. Properties such as this one that are strategically located adjacent to the existing Long Sault Conservation Area boundaries and that contain a range of natural heritage and source water protection features have been identified in this strategy as priorities for acquisition. The acquisition of this parcel provides a unique opportunity to protect a significant environmental area and will increase the overall size of Long Sault Conservation Area. The acquisition of this property also meets the objectives of the *Durham Regional Official Plan*.

Central Lake Ontario Conservation Authority was successful in being awarded funding from the Federal Nature Smart Solutions Ecosystem Protection Fund towards the acquisition of this parcel.

Long Sault Conservation Area: Hubble Property, Part lot 7, Concession 10, Municipality of Clarington

Represents an an ecologically important 11.5 hectare (28.6 acre) +/- parcel of land as an additional land holding to the Long Sault Conservation Area.

The parcel lies on the south side of Boundary Road. The property is fully forested by natural regeneration and contributes directly to the surrounding Long Sault Forest.



The property lies at the crest of the Oak Ridges Moraine, providing headwater functions to both the Bowmanville Creek watershed to the south, and the East Cross Creek watershed to the north. This parcel, along with those in and around Long Sault Conservation Area, feature prominently in core natural heritage systems. Continued protection of these areas is important, particularly as the Region continues to urbanize. These natural areas help to regulate groundwater and surface water resources,

reduce summer temperatures, offer carbon sequestration, support biodiversity and pollinators and help to reduce downstream erosion and flooding.

This property lies within the Long Sault Conservation Area Primary Land Acquisition Target Area as identified in CLOCA's Board-approved Land Acquisition Strategy and is strategically located just metres from other adjacent Long Sault Conservation Area parcels. Properties such as this one that are strategically located in close proximity to the existing Long Sault Conservation Area boundaries and that contain a range of natural heritage and source water protection features have been identified in this strategy as priorities for acquisition. The acquisition of this parcel provides a unique opportunity to protect a significant environmental area and will increase the overall size of Long Sault Conservation Area, ultimately making it more sustainable for public access. The acquisition of this property also meets the objectives of the *Durham Regional Official Plan*.

Central Lake Ontario Conservation Authority was successful in being awarded funding from the Federal Nature Smart Solutions Ecosystem Protection Fund towards the acquisition of this parcel.

Long Sault Conservation Area: Concession 9, Part Lot 10, Municipality of Clarington – Tomlin Property

Represents an ecologically important 17 hectare +/- parcel of land as an additional land holding to the Long Sault Conservation Area.

The property is surrounded by the Long Sault Conservation Area. It is fully forested by predominantly native hardwoods with some



conifer plantation intermixed and contributes directly to the surrounding Long Sault Forest. The property lies at the crest of the Oak Ridges Moraine, providing source water functions to both the Bowmanville Creek watershed to the south, and the East Cross Creek watershed to the north. This parcel along with those in and around Long Sault Conservation Area feature prominently in core natural heritage systems. Continued protection of these areas is important, particularly as the Region continues to

This property lies within the Long Sault Conservation Area Primary Land Acquisition Target Area as identified in CLOCA's Board-approved Land Acquisition Strategy and is strategically surrounded by the Long Sault Conservation Area and has been identified as priority for acquisition. The acquisition of this parcel provides a unique opportunity to protect a significant environmental area and will increase the overall size of Long Sault Conservation Area, ultimately making it more sustainable for public access. The acquisition of this property also meets the objectives of the *Durham Regional Official Plan*.

Represents an ecologically important 26.3-hectare +/- parcel of land as an additional land holding to the Mount Carmel Tract. Mount Carmel Tract, located along the southern boundary of the Township of Scugog in the heart of the Oak Ridges Moraine, includes mature deciduous forest and is surrounded by an even more extensive forest area composed of a mixture of deciduous forest, plantation, and meadow.

**Tomlin Property
Long Sault Conservation Area
CON 9 PT LOT 10
Municipality of Clarington**

Legend

- Tomlin Property
- Assessment Parcel
- Long Sault Conservation Area
- Durham East Cross Conservation Area

Scale: 0 50 100 150 200 Meters

Date Printed: June 8, 2024

The property lies at the crest of the Oak Ridges Moraine, providing source water functions to both the Oshawa Creek watershed to the south, and the Blackstock

This parcel, along with those in and around the Mount Carmel Tract, features prominently in core natural heritage systems. Continued protection of these areas is important, particularly as the Region continues to urbanize. These natural areas help to regulate groundwater and surface water resources, moderate ground surface temperatures, offer carbon sequestration, support biodiversity and pollinators and help to reduce downstream erosion and flooding.

Central Lake Ontario Conservation Authority was successful in being awarded funding from the Federal Nature Smart Solutions Ecosystem Protection Fund towards the acquisition of this parcel.



Conservation Areas' Rodenticide Policy

CLOCA is an environmental leader in our watershed seeking to ensure safe and responsible use of products such as rodenticides to minimize risks to human health and wildlife.

Central Lake Ontario Conservation Authority is an environmental leader seeking to ensure safe and responsible use of products such as rodenticides to minimize risks to human health, non-target wildlife and the environment. Rodenticides are substances that are used to control populations of pests such as mice and rats. The Rodenticide Policy restricts the use of Rodenticide in CLOCA facilities and lands, and aims to increase public awareness related to non-target wildlife health.

From the height of the Oak Ridges Moraine to the shores of Lake Ontario, CLOCA has been protecting areas of natural significance within its jurisdiction for many years. Lands have been acquired over time to help protect wetlands, valleylands, forests, meadows, groundwater resources, aquatic environments, and other important wildlife habitats and to protect against the loss of life and property damage associated with natural hazards.

Health Canada has established that “rodenticides are pest control products registered for controlling mice, rats and other rodents that pose threats to public health, critical habitats, native plants and animals, crops and food supplies.” Common rodenticide products often include products that contain active anticoagulant ingredients that cause internal bleeding after ingestion. After feeding on these products, rodents often become lethargic and display abnormal behaviour, making these rodents easy prey to predators. Predators that consume poisoned rodents are vulnerable to secondary poisoning. Hawks and owls are examples of wildlife species that are vulnerable.

It is the policy of CLOCA to protect wildlife from secondary poisoning through limiting the use of rodenticide products on lands owned by CLOCA and to discourage the use of these products throughout our watershed to minimize risks to human health and non-target wildlife, except for Emergency Pest Management situations. In Emergency Pest Management situations, the use of such products shall only receive consideration as a last resort and when all rodent pest management alternatives have been exhausted. An assessment would be completed by a licensed contractor, who is to exhaust every pest management option possible, prior to considering the use of these products.

Central Lake Ontario Conservation Authority will make every effort to educate the public about the risks associated with the use of rodenticides, as well as endeavour to strike a balance between managing rodent populations, while safeguarding human health and non-target wildlife and environmentally sensitive lands.

Conservation Areas' Update

Land management and field operation activities within CLOCA's Conservation Areas

Summer and fall months provide for peak visitation in CLOCA's Conservation Areas. From May through late October, Land Management staff are maintaining Conservation Areas seven days per week. Weekend work allows for staff to be in the Conservation Areas when they are often at their busiest. Work tasks generally range from repair and servicing work to enforcement (e.g., issuing parking tickets, managing trespass concerns, monitoring, patrol work, etc.), as well as opening/closing Areas for groups and 'Day Use' bookings.

At the commencement of summer, Land Management and Operations' staff completed training at the Enniskillen Conservation Area for permanent staff and seasonal students to assist with land management responsibilities. Staff and students completed a suite of the following training sessions:

- Seasonal and ground maintenance equipment (including safe operation)
- Safe trailering and transportation of equipment
- New worker awareness
- Road and driver safety
- First Aid/CPR
- Durham Region Health Department – Tick Awareness

Conservation Areas Inspections

Formal Conservation Area inspections were completed in accordance with the CLOCA Board-approved Conservation Areas' Inspection Policy at all primary Conservation Areas. Land management staff utilized the month of November to complete inspection work at secondary and tertiary locations throughout the watershed. The removal of hazard trees and limbs throughout CLOCA's Conservation Areas continues to dominate much of the effort required by Land Management staff to ensure that trails are safe and fit for visitor use. Extreme weather and high wind events are becoming more common and our natural spaces have to be monitored closely. These events frequently result in hazardous tree removal and/or trail erosion repairs.

Enniskillen Conservation Area – Before



Enniskillen Conservation Area – Under repair



Conservation Areas' Sign Replacement

Central Lake Ontario Conservation Authority staff are completing design and installation of upgraded signage and incorporating Ontario Accessibility requirements at our Conservation Areas.

Sign replacement work includes modernizing and replacing all kiosk signage, secondary entrance signs, trailhead signs and trail markers. We have completed sign inventory and replacement work at Lynde Shores Conservation Area, Long Sault Conservation Area, Enniskillen Conservation Area, Purple Woods Conservation Area and Bowmanville Westside Marshes Conservation Area. We are nearing completion at Heber Down Conservation Area and will be moving on to the Stephen's Gulch and Crow's Pass Conservation Areas. We have budgeted for new main entrance signs at our Conservation Areas for 2025.

Russ Powell Nature Centre Improvements

Interior and exterior improvements are being completed at the Russ Powell Nature Centre at Enniskillen Conservation Area. This education building has received roof repairs, epoxy flooring and barn board interior siding, and a new ceiling, lighting, equipment storage and display area will soon be completed. Entrance improvements are also being undertaken to improve drainage and traffic safety.

Conservation Areas' Workshop

The Conservation Areas Workshop was held in-person in Orillia in October 2024. This Workshop is an annual opportunity for Conservation Areas' staff to meet their counterparts from Conservation Authorities across the province, and to learn and exchange experiences, ideas, and innovations.

The Workshop includes in-person tours of Conservation Areas, in-class education sessions, and an exhibitor marketplace. Several CLOCA Areas and Education staff attended the event and participated in a variety of sessions/workshops including:

- Conflict Resolution and De-escalation
- Indigenous Engagement within Conservation
- Young Conservation Professionals
- Conservation Area Project Management
- Natural Asset Management

Central Lake Ontario Conservation Authority's Conservation Area Trail Stewards (CATS) program was chosen as this year's recipient of the 2024 Innovation Award at the Conservation Areas Workshop. The 'Innovation Bear Award' was awarded to CLOCA staff by the Conservation Area Workshop Committee signifying an agency and submission that *demonstrates the most leadership, excellence and impact in innovation*. This is the second time that CLOCA has won this award since the Award's inception in 2010.

To view the Workshop program and award submissions please visit <https://www.conservationareasworkshop.ca/>

Conservation Areas' Workshop, Orillia 2024



Conservation Area Trail Stewards (CATS)

Central Lake Ontario Conservation Authority recruits volunteers to participate in its Conservation Area Trail Stewards (CATS) program to assist in monitoring of CLOCA's Conservation Areas. These engaged members of the public complete both virtual and in-person training and commit to spending a few hours in a designated Conservation Area a minimum of once every month, however many commit to more each month. In exchange, they receive an annual pass for the Conservation Area where they have chosen to volunteer. There are currently 89 volunteers participating in this program.

During the spring, summer and fall seasons, CLOCA staff host a Conservation Area Trail Stewards' intake session where the registered volunteers will complete 4.5 hours of online and two hours of in-person, onsite training. During the online training, volunteers are required to complete a variety of human resources training such as *Accessibility for Ontarians with Disabilities Act* customer service, basic Ontario Health and Safety Ministry of Labour training videos, CLOCA policies, volunteer guide and waivers, and standard operating procedures. The in-person, on-site training provides an opportunity for staff and volunteers to meet face-to-face and discuss risks and hazards when completing CATS duties, CATS kit material overview, basic trail maintenance, informal educational engagement with the public, reporting of user and infrastructure needs, and some invasive species management along with a variety of other items that could be encountered onsite.

After completion of the training, CATS volunteers receive their own CATS kit. This goes a long way in helping us take better care of the trails, as well as maintain visitor access, safety, and enjoyment when CLOCA staff are not on site.

In 2024, CLOCA received over 580 CATS reports. In that time, volunteers have engaged with the public 2,129 times (and received many "thank yous" from the public), collected 232 bags of garbage, and reported on fallen trees on trails, dogs on and off leash, parked cars with and without permits, wildlife concerns, motorized vehicles on the trail, and muddy, icy, or clear trail conditions. They have also been helpful in the success of CLOCA's turtle cover program by placing covers over clutches of eggs when they witnessed a turtle laying egg, and then recording the location, and reporting on the condition and location of those placed by the public, and helping hatchlings into the wetland. CATS' volunteers have identified turtle laying species for those eggs that were covered and the species and number of hatchlings emerging from under the covers in the fall by filling out an online survey. CATS gather covers at the end of October to reduce Areas' staff time for this task.

Conservation Area Trail Stewards deliver on trail cleanliness, issues reporting, and education. The program has been very successful and has addressed the request for more staff contact at our Conservation Areas. CATS also have reduced our public liability through their presence and reporting, and CATS reports have been used to document the frequency of trail inspections for insurance claims related to trail accidents and injuries. The program has also created an opportunity for CATS volunteers to give back and take part in the responsibility of stewardship of the lands. The volunteers love the work that they do and take much pride in wearing the yellow volunteer vests when they are performing their CATS duties. For more information on this rewarding program, please visit <https://www.cloca.com/cats>

Goal number 4

Create a more knowledgeable and connected watershed community through engagement and education.



Bowmanville Westside Marshes Conservation Area
Earth Day Tree-planting, 2024

Conservation Education

Since 1988, CLOCA has delivered formal and informal education programs to inspire the community to be watershed champions.

Central Lake Ontario Conservation Authority's education programs are an important deliverable designed to fulfill CLOCA's fourth goal in its Strategic Plan (2021-2025), to create a more knowledgeable and connected watershed through community engagement and education. This includes connecting people with nature, culture and greenspace to promote environmental awareness, appreciation, and action; increase school participation in environmental education and stewardship; provide programs that respond to and reflect a diverse community; and communicate a recognized brand that reflects our corporate culture, our goals, and strategic actions, to our watershed community. 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.

SCHOOL YEAR 2023/24-2024/25: IN YOUR WATERSHED PROGRAM

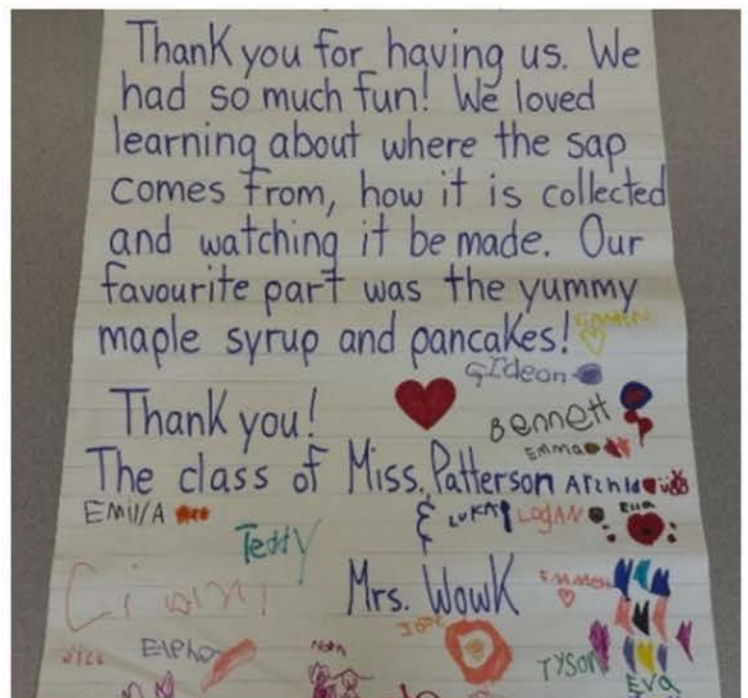
Watershed Connections

Our Conservation Areas are not only places where we protect ecologically significant land within our watershed, but also where we educate and inspire future generations.

Students visiting and exploring our Conservation Areas will learn that they are part of a watershed community, and what we do on the land has an impact on the quality of our drinking water, and on aquatic habitats. They will realize that we have a responsibility to recognize and manage our impacts to keep our watershed healthy.

Kindergarten to Grade 12

The sooner children become active and engaged in the outdoors, the stronger and more lasting their bond will be with the natural environment. That is why we start our conservation education programming at the kindergarten level. We offer programming to schools within our watershed from four school boards: Durham District School Board, Durham Catholic District School Board, Kawartha Pineridge District School Board and Peterborough Victoria Northumberland Clarington Catholic District School Board. We also offer programming to home-school and Montessori groups. It is important to nurture and strengthen that bond as children age, so we continue the learning through to Grade 12. All of our school programs are connected to the current Ontario education curriculum.



Number of Participating Students

Over 5,400 students participated in our *In your Watershed* program. Students visited from all four school boards, as well as Montessori and home-school groups in our watershed. Staff also visited schools or met students in a natural area near their school, within CLOCA's watershed, for our *In Your Backyard* program offering. The maple syrup season continues to be a busy one—this past season, approximately 2,100 students participated in CLOCA's *Maple Syrup Tour* at Purple Woods Conservation Area. Visiting classes could also order a class set of pancakes and enjoyed them with Purple Woods' maple syrup. The busiest months of the school year were March through to the end of June, with CLOCA education programs fully booked.

SPECIALIST HIGH SKILLS MAJOR (SHSM) PROGRAM CERTIFICATIONS

This is a specialized program that allows students to gain credits toward their Ontario Secondary School Diploma and focus their learning on a specific economic sector at the same time. The SHSM is a Ministry of Education-approved program. Students receive the SHSM seal on their diploma when they complete a specific bundle of eight to 10 courses in a student's selected field, earn industry certifications, and gain important skills on the job through cooperative education placements.

Two SHSM certifications are currently offered by CLOCA:

1. Innovation, Creativity and Entrepreneurship (ICE) SHSM

Grade 11/12 students from Donald A. Wilson Secondary School visited Lynde Shores Conservation Area where they completed an ICE SHSM that looked at the problem of roads through the wetland to wildlife. Central Lake Ontario Conservation Authority's wildlife

biologist outlined the process of the creation of the eco-passage at this Conservation Area, its purpose and success. Students then brainstormed on ways to improve upon CLOCA's turtle egg cover program efforts, followed by the construction of turtle egg covers to be used in this program.



CLOCA's wetland biologist (left) with SHSM ICE students at Lynde Shores Conservation Area.



SHSM ICE students investigating a wildlife passage under a road at Lynde Shores Conservation Area.



SHSM ICE students building turtle egg covers at Lynde Shores Conservation Area.

2. Global Positioning System (GPS) SHSM – NEW!

Central Lake Ontario Conservation Authority's education staff offered their first GPS SHSM for a class of Grade 11/12 students at G.L. Roberts Secondary School. Knowledge of how to use technologies like GPS offers students the opportunity to navigate the natural areas of CLOCA's watershed that they may not have been able to do so without this tool and skill.

Nature Nook

This 'play space' at Enniskillen Conservation Area provides children with the opportunity to create their own play in a forest area equipped with natural play materials (loose parts, e.g., rails, sticks, stones, logs, tree cookies).

The play space is contained within cedar rail fencing and in a forested area with little vegetation on the ground, to minimize off-trail impacts. The Nature Nook was created with the knowledge that child-directed play helps with the development of the whole child – cognitive, social, emotional and physical skills.

The Nature Nook play space is a newer program offering and is starting to gain popularity with teachers, with bookings during the months of April, June, and October where the area was enjoyed by approximately 165 students in total. Only positive feedback was expressed to CLOCA's education staff by teachers.

Ministry of the Environment Conservation and Parks (MECP) Great Lakes Student Conference Grant

The MECP and the Ministry of Education (MOE) developed a model for Great Lakes partners to work with school boards and teachers to co-create new learning opportunities for students.

Their hope is to expand the reach of Great Lakes partners, enable teachers from all subjects to involve their students and support multiple Ontario priorities. Central Lake Ontario Conservation Authority was chosen as the next recipient of the \$20,000 grant from MECP to work with school board leads and teachers to co-create an experiential Great Lakes learning opportunity for secondary school students. As part of this grant, CLOCA will organize and host a Great Lakes Student Conference in CLOCA's watershed, following the model set out by the MECP and the MOE. The model also includes a teacher tour of CLOCA's watershed and a pre-visit to participating schools prior to the student conference. The teacher tour took place in the fall of 2024 and the pre-visit is scheduled for winter (2025), followed by the student conference in the spring (2025).

Fall Teacher Tour

In the fall (2024), CLOCA hosted the second planning meeting with leads from the four school boards CLOCA services. A full-day teacher tour took place on November 15. Fifty-seven teachers registered for the tour. They enjoyed a guided tour of CLOCA's watershed by CLOCA staff, travelling from the outlet to headwaters and back. The tour highlighted authentic, experiential learning opportunities that teachers can access in their school communities and provided an opportunity to explore how the Great Lakes can anchor education curriculum in engaging and impactful lessons.

Great Lakes Student Conference

The spring 2025 Great Lakes Student Conference plans are underway. The event will be hosted at Heydenshore Pavillion in Whitby on April 25, 2025. One-hundred students from the four school boards CLOCA services will be invited to participate.

Kinomaagewin 2 (Feb. 26/27, April 30 and June 12)

Central Lake Ontario Conservation Authority's education staff were invited to participate in *Kinomaagewin 2: Elakehkiimaat Weenjii Ahkuyung Teachings from the Land*, hosted by Regional Education Council (REC) 4, which are comprised of six First Nations communities. This was the first of three sessions aimed at developing a land-based learning project in the REC 4 community (Scugog), and this session was hosted by Giiwedini Ki Chippewas of Rama First Nation. Team Scugog is comprised of educators from the two local Durham school boards (Indigenous Education), Kawartha Conservation, CLOCA and community/council members of the Mississaugas of Scugog Island First Nation (MSIFN). The second session was hosted by the MSIFN on Scugog Island, and the third session was held at Jackson's Point.

Canadian Bushcraft – Anishinaabe Sugar Bush Day Professional Development – March 30

Canadian Bushcraft is an Indigenous-owned and -operated Wilderness Skills School based in Central Ontario. The Anishinaabe Sugar Bush Day workshop was hosted at Hiawatha First Nation by Canadian Bushcraft's Anishinaabe Ethnobotanical Specialist Caleb Musgrave. Participants were guided through the process of making traditional early-contact and pre-contact maple sugar, along with plant identification. The teachings learned and the connections made will contribute to the Indigenous content for CLOCA's Purple Woods Maple Syrup Festival.

Purple Woods Maple Syrup Festival 2024

Central Lake Ontario Conservation Authority's annual Maple Syrup Festival welcomed 7,431 visitors to Purple Woods Conservation Area in 2024.

Seven community groups participated in the Festival's Pancake Program: Girls Inc. of Durham, Simcoe Hall Settlement House, 30th Oshawa Scout Group, Humane Society of Durham Region, YMCA of GTA, Whitby Yacht Club and 30th Oshawa Venturer Rover Scout group. Community groups work alongside CLOCA staff assisting with food services, including clean-up, customer service, and waste management. A donation of \$400 is provided to community groups for each day of service.

Special guests and new additions to the Festival included Ben's Kettlecorn, Oshawa Museum, Scugog Shores Museum, Soper Creek Wildlife, Oshawa Public Library, Angela Duckworth (Indigenous Health Promoter), Durham Region Waste Management and Bawaajigewin Community Circle members.

Central Lake Ontario Conservation Authority is grateful for sponsorships provided by: Tribute Communities, Fieldgate Homes, Vickery Technical Services, Regional Municipality of Durham (Durham Tourism), Ontario Motor Sales, Pure Mechanical, Durham Kubota, Gay Company Limited, and Window Bars Inc. That gratefulness extends to Festival volunteers, comprised of 62 high school and community members who contributed a total of 1,032 volunteer hours.

SMART Watersheds Program Update

This community science project is designed to create a technology ecosystem, enhancing CLOCA's environmental monitoring activities with more frequent data collection, analysis, and advanced data management. In addition to the technology, the SMART Watersheds program engages community volunteers, the general public, elementary, high school, and post-secondary students in using this new technology in their local watershed.

The *Weather Watch* component of this project is now active and live data from CLOCA's weather stations, installed throughout CLOCA's watershed, is viewable on CLOCA's website at <https://www.cloca.com/smart-watersheds>. Backpacks for the *Water Watch* component containing water and soil monitoring equipment and instructions on use and safety have been distributed to Whitby, Oshawa and Clarington public library locations. Backpacks can be signed out and the contents used to collect water/soil data at the stations marked on the map provided. Data collected will be displayed on CLOCA's website.

Turtle Nesting Program

Turtle nest covers were delivered to Lynde Shores, Heber Down and Bowmanville Westside Marshes Conservation Areas again this year along with signage explaining how to properly place the covers. These covers are placed over turtle nests by visitors to the Conservation Areas after viewing a turtle laying their eggs. An addition to the signage in 2024 was a QR code that, once scanned, will open a survey form where details can be provided, such as the location of the placed cover, a picture of the turtle laying eggs, and other information on hatchlings and predation of nests. The goal of collecting this data is to obtain a clearer idea of how well this program is working to help the turtles and if further modifications to the program are needed.

Durham Children's Watershed Festival

Launched as part of CLOCA's 40th anniversary theme of water quality in 1998, the goal of the Durham Children's Watershed Festival (DCWF) is to increase Grade four students' awareness concerning water issues and motivating them to become water stewards in their home, classroom, and community.

The Festival includes 40 hands-on, interactive activity centres with messages relevant to everyday lives around the concepts of water conservation and protection. Through the activity centres, the students discover the importance of water, and how their actions impact the watershed in which they live.

The 25th annual DCWF was held at Camp Samac in Oshawa from September 24–27, with 3,015 Grade four students and 473 teachers and adult volunteers attending. Since the first Festival in 1998, over 89,481 Grade four students, 9,700 high school students and 11,669 teachers and parent volunteers have participated from across the Region of Durham.

Camp Samac continues to provide a safe and central location for participants to experience a fun and immersive learning opportunity. A tributary of Oshawa Creek travels through the property, offering participants an opportunity to view the annual migration and life cycle of Coho and Chinook salmon, and allows for continuous connections to various activity centres.

Each day of the Festival requires an average of 100 volunteers and in 2024, a total of 1,525 volunteer hours were contributed with support from eight secondary schools, bringing 329 students and 41 community and partner staff volunteers.

Students were particularly engaged with the three CLOCA activities that highlighted CLOCA's monitoring programs. Natural Heritage staff presented on terrestrial habitats while Water Resource Engineering staff engaged students with CLOCA's Smart Watersheds Project activities.

With financial and in-kind contributions from sponsors, CLOCA continues to subsidize costs for students to make the experience affordable. Currently, CLOCA subsidizes student fees to ensure affordability for this diverse community. Several local and regional corporate sponsors contribute financial and in-kind resources to the Festival, ensuring activity centres are updated, volunteers receive lunch and refreshments, and bussing costs are subsidized.

COMMUNITY EVENTS (CLOCA)

- **Family Snowshoe (Feb.)**
Hike on snowshoes at night by lanternlight, held at Enniskillen Conservation Area.
- **Lantern Hike (April)**
Hike through the Purple Woods Conservation Area sugar bush by lanternlight, learning about the maple syrup-making process.
- **Mother's Day Wildflower Hike and Tea (April)**
An interpretive wildflower hike at Enniskillen Conservation Area, followed by scones with hot tea.
- **Summer Solstice Firefly Hike (June)**
A guided night hike through Purple Woods Conservation Area, learning about nocturnal animals. Fireflies are enjoyed during the hike through the meadow.
- **Bird Count for Kids (Nov.)**
Children were introduced to bird watching and bird counting for science while hiking on the trails at Enniskillen Conservation Area with binoculars. A local falconer provided a live birds-of-prey presentation.

Central Lake Ontario Conservation Authority partners with numerous organizations, municipal and regional partners in a variety of community outreach initiatives, including Bring Back the Salmon program and the Durham Climate Roundtable Forum.



Durham Children's Watershed Festival, 2024

Goal number 5

Demonstrate business excellence through effective customer service, engaged employees and innovation.



Engaging Indigenous Nations, Communities and Peoples

Our commitment: Beginning our collaborative journey

Central Lake Ontario Conservation Authority's (CLOCA's) vision is to create and maintain healthy watersheds for today and tomorrow, with a mandate to advance watershed health through engagement, science and conservation. Our objective is to provide programs and services designed to further the conservation, restoration, development and management of natural resources within our watershed.

Cooperation and Partnership

Indigenous Peoples are not only the original caretakers of the land, but continue to demonstrate strong principles for respect and protection of the natural environment. Central Lake Ontario Conservation Authority shares these values and can learn from further teachings and understanding. Working alongside Indigenous Peoples, together we can be a stronger voice for watershed conservation.

Guiding Principles

Central Lake Ontario Conservation Authority's engagement, partnership and work alongside First Nations, Metis and Inuit communities is guided by:

- Our shared responsibility for the stewardship of the lands, waters, and resources of the watershed for present and future generations.
- Inclusiveness and our desire to engage Indigenous nations, communities and people consistently, genuinely and respectfully.
- Our desire to collaboratively provide appropriate information, activities and programs related to Indigenous Knowledge.

Education

Central Lake Ontario Conservation Authority supports Indigenous history and culture training sessions for all Conservation Authority staff. Training will assist to broaden operational staffs' knowledge and understanding of Indigenous issues in Canada, as well as Indigenous heritage and present-day culture. Throughout 2024, CLOCA staff have participated in First Nations'-lead workshops, events and additional learning opportunities, as part of our commitment towards successful steps in collaboration.

Record Retention Policy and Schedule

Outlines the process for managing documents from creation to retention or disposal.

Good policies help businesses retrieve documents for easy reference. They also help employees understand how to dispose of documents properly to protect information. Records are an information asset that should be maintained for an appropriate time, taking into account its legal, regulatory, fiscal, operational and historical requirements.

Section 3.13 of CLOCA's approved Administrative By-law states that "The Authority shall keep full and accurate records including, but not limited to:

- i. Minutes of all meetings of the Authority, including registries of statements of interests in accordance with the Municipal Conflict of Interest Act; Administrative and Meeting Procedural By-Law March 2021;
- ii. Assets, liabilities, receipts and disbursements of the Authority and Financial Statements and Reports of the Auditors;
- iii. Human Resources Files for all employees and Members as applicable;
- iv. Workplace Health and Safety documents including workplace inspections, workplace accidents, investigations, etc.;

- v. Electronic Communications including emails;
 - vi. Contracts and Agreements entered into by the Authority;
 - vii. Strategic Plans and other documents providing organizational direction;
 - viii. Projects of the Authority;
 - vii. Technical Studies and data gathered in support of Programs of the Authority;
 - viii. Legal Proceedings involving the Authority; and
 - ix. Incidents of personal injury or property damage involving the Authority and members of the public.
- Such records shall be retained and protected in accordance with all applicable laws and the Records Retention Policy of the Authority as approved by the General Membership from time to-time."

Through the Greater Golden Horseshoe Conservation Authority Coalition (GGHCAC), a draft records retention schedule was formulated. GGHCAC then approached Gardiner Roberts LLP to review the legal aspects and requirements for the document and to generate a template for all Conservation Authorities to use as the base for developing their own schedules. The recommended retention schedule was prepared in compliance with legislated, professional and contractual retention requirements and in accordance with industry best practices. To fulfill the requirements of the Administrative By-law, CLOCA has developed a Records Retention Policy and Schedule.

The recommended retention policy and schedule will ensure that CLOCA complies with legal and regulatory record requirements, minimizes risks associated with improper record handling, and maintains operational efficiency by keeping only the necessary records.

GIS, Information and Data Management

The year of 2024 realized significant advancements in GIS, Information Technology, and Data Management.

In 2024, a year of significant advancements unfolded across the fields of GIS, Information Technology, and Data Management, with a clear focus on enhancing the Conservation Authority Content Management System (CACMS) and supporting conservation efforts throughout the Region.

The year began with the successful migration of legacy data for several key Conservation Authorities, including Saugeen Valley and Hamilton, ensuring they were seamlessly integrated into the updated system. As part of this transition, the team worked to implement AODA-compliant permit templates, which not only ensured the system's accessibility, but also provided updated reporting in-line with Ontario Regulation 41/24, helping all partner CAs maintain compliance with provincial standards.

In parallel, ongoing support and maintenance was provided to Central Lake Ontario, Halton Region, Mississippi Valley, Kawartha Region, Otonabee, and Ganaraska Region Conservation Authorities, who relied on

CACMS for efficient data management and report generation. This work was crucial in ensuring that these CAs had up-to-date tools and systems to support their environmental initiatives.

A key focus of the year was also on Credit Valley, Toronto and Region and Central Lake Ontario (CTC) Source Water Protection, with support for the Source Water Protection SharePoint site ensuring that vital data was properly categorized and synchronized with CACMS. This was particularly important as updates to the Central Lake Ontario Source Protection Area (CLOSPA) Assessment Report Section 36 were completed, ensuring that water protection efforts were fully supported by the most accurate and timely data available. The content of this report was reviewed, updated, and redesigned to be AODA compliant.

Flood management efforts were strengthened through the continued training of staff from various Conservation Authorities in flood forecasting and warning systems, specifically through environmental data management systems' training sessions. In addition, updates to the polling station logger telemetry systems helped CLOCA Engineering staff maintain accurate flood monitoring capabilities, providing critical data in real-time.

Central Lake Ontario Conservation Authority's RiverWatch Flood app experienced usage several times throughout 2024 including two high-intensity storms during the summer months. Maintenance occurred to ensure the app was always ready to support the Flood Watch team, and new enhancements are set to be released before the start of the next flood season in early 2025.

The year also saw a concerted effort in supporting Natural Heritage, Engineering, and Aquatics programs. With a consistent number of data requests for streamflow and rainfall data, CLOCA's Engineering team was able to continue making informed decisions about watershed management, ensuring the protection of vital natural resources. The GIS team also provided mapping support for the Enniskillen Proposed Bioswale and Roadway Reconfiguration project, as well as the Lynde Shores Conceptual Wetlands Plan for the Runnymede Lands.

The GIS team continued to provide support to CLOCA's Integrated Watershed Monitoring Program and other monitoring initiatives through the creation of four new mobile data collection solutions, while working with Communications to share this information with the public. The Lynde Shores Restoration StoryMap (<https://bit.ly/4h6PLFH>) was created to document and share with the public the three main active projects under construction at Lynde Shores in the coming years.

Amidst this technical progress, several important conferences took place, providing opportunities for knowledge sharing and networking between conservation professionals and IT experts.

Further advancements were made with the Oak Ridges Moraine Groundwater Program (ORMGP) Partners' website, where the cross-section tool and the logger file import tool received important updates, ensuring these tools continued to support environmental monitoring efforts. Similarly, significant progress was made on CLOCA's trail maps, with new maps completed for locations such as Bowmanville Westside Marshes, Crows' Pass, Stephen's Gulch, Heber Down, and Hampton Conservation Areas.

A major milestone came with the installation of the new VertiGIS Studio Web Viewer, which included a revamped CLOCA viewer and several Geocortex workflows recreated on the new platform. Similarly, considerable progress was made rebuilding the ORMGP web mapping application on this same platform, while continuing to improve and maintain the current application. These improvements enhanced the visualization, analysis, and reporting of geospatial data, streamlining workflows across multiple Conservation Authorities. Additionally, the implementation of Server, Portal, and Data Store 11.1—along with the recreation of essential ESRI REST services—ensured the geospatial infrastructure was more robust and capable of handling the growing demands of the system.

Continued maintenance of CLOCA's datasets occurred with updates to floodlines coming into effect. Staff were also involved with updates to key components of the Conservation Authority's Regulated Areas, including a full update to the Meander Belt Allowance.

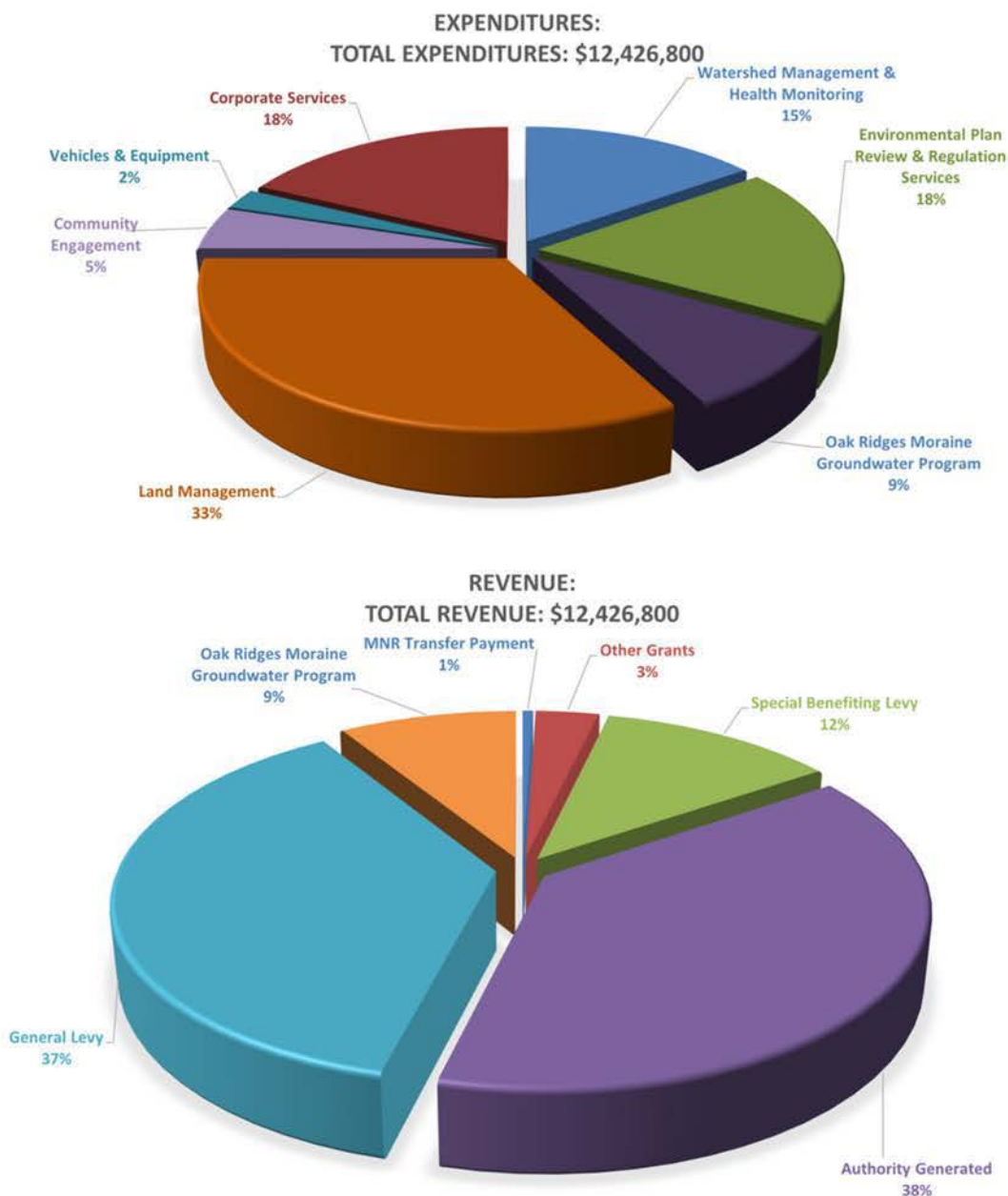
Staff processed 42 data requests during 2024, with 90 per cent of requests being executed and fulfilled. Work continues on streamlining the data request process with a plan to implement Adobe E-Signatures for IP Agreements in 2025.

Looking back, 2024 was a year of significant achievement and forward momentum in the realms of GIS, IT, and data management. The combination of system updates, migration efforts, geospatial advancements, and ongoing support for partner Conservation Authorities laid a strong foundation for future growth.

Accounting and Administration

2024 Budget

The approved 2024 budget reflects an allocation of resources to support CLOCA's planned programs and services. This budget allowed CLOCA to continue its efforts in support of our mission to advance watershed health through engagement, science and conservation.



2024 Board of Directors

Central Lake Ontario Conservation Authority is governed by members who make up our Board of Directors.

Board Members are appointed for a four-year term, following municipal elections, with representation based on municipal populations in our watershed. Our Board Members authorize CLOCA's programs and policies, which are then implemented by staff.

TOWNSHIP OF UXBRIDGE

Councillor B. Garrod

416-788-5388

bgarrod@uxbridge.ca

CITY OF PICKERING

Councillor D. Pickles

905-420-4605, ext. 4613

dpickles@pickering.ca

TOWN OF AJAX

Councillor M. Crawford

905-550-1133

marilyn.crawford@ajax.ca

TOWNSHIP OF SCUGOG

Councillor I. McDougall

905-809-7347

imcdougall@scugog.ca

TOWN OF WHITBY

Mayor E. Roy (Chair)

905-706-2001

roye@whitby.ca

Councillor C. Leahy

905-430-4300, ext. 2203

leahyc@whitby.ca

Councillor R. Mulcahy

905 706-0482

mulcahyr@whitby.ca

Councillor M. Shahid

905-668-5803

shahidm@whitby.ca

CITY OF OSHAWA

Councillor B. Chapman (Vice Chair)

905-436-5619

bchapman@oshawa.ca

Councillor R. Kerr

905 436-5632

rkerr@oshawa.ca

Councillor T. Marimpietri

905-436-5613

tdmarimpietri@oshawa.ca

Councillor J. Neal

905-436-5610

jneal@oshawa.ca

MUNICIPALITY OF CLARINGTON

Councillor S. Elhajjeh

905-623-3379, ext. 2003

selhajjeh@clarington.net

R. Hooper

Local Citizen Representative

Councillor C. Traill

905-623-3379, ext. 2003

ctrail@clarington.net

Central Lake Ontario Conservation Authority

2024 Annual Report



100 WHITING AVENUE OSHAWA ON L1H 3T3

WWW.CLOCA.COM