

2024

Lands for Life: Conservation Area Strategy

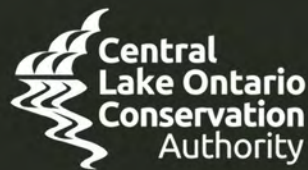


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1 Introduction

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 18 minor watercourses draining an area of over 639 square kilometres (kms). Our watershed is within the ancestral and treaty territory of the Williams Treaties First Nations, stretching from the municipal boundaries of Ajax/Pickering to Clarington, and north, from Lake Ontario to the crest of the Oak Ridges Moraine (Figure 1).

Central Lake Ontario Conservation Authority provides a wide variety of science-based watershed management programs and services, including those related to the conservation and management of 2,924 hectares (ha) of conservation lands. These programs and services are 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.



Figure 1

2 Mandatory, Municipal, and other CLOCA Programs and Services

In 2019, the Government of Ontario made amendments to the *Conservation Authorities Act* (R.S.O., 1990, c. C.27), including further defining the mandatory program and services that a Conservation Authority shall provide within its area of jurisdiction. These mandatory programs and services include:

- i Programs and services related to the risk of natural hazards.
- ii Programs and services related to the conservation and management of lands owned or controlled by the authority, including any interests in land registered on title.
- iii Programs and services related to the authority's duties, functions and responsibilities as a source protection authority under the *Clean Water Act*, 2006.
- iv Programs and services related to the authority's duties, functions and responsibilities under an Act prescribed by the regulations.

In 2021, following these amendments, the Government of Ontario passed Ontario Regulation 686/21 to outline the programs and services that Conservation Authorities are required to provide. These include:

- **managing hazards such as erosion and flooding;**
- **forecasting and responding to flood and drought conditions;**
- managing ice;
- providing guidance on infrastructure development;
- reviewing and commenting on planning applications;
- **administering and enforcing the *Conservation Authorities Act*;**
- **conserving and managing Conservation Authority lands;**
- **carrying out duties relating to the *Clean Water Act* and Source Water Protection; and,**
- **participating in provincial groundwater and stream monitoring programs.**

**Programs and services in bold are either directly or indirectly connected to CLOCA Conservation Lands or determine how these lands are secured, conserved and managed.*

In addition, CLOCA works with its municipal partners to provide watershed planning, watershed monitoring, information management, and outreach/education services to support the delivery of mandatory programs and equip municipalities with the tools to make responsible and informed land use decisions that maintain and improve watershed health and adapt to changes in climate for the benefit of their residents. In many ways, CLOCA's Conservation Lands directly support these other core programs and services that work to achieve watershed health. Central Lake Ontario Conservation Authority relies on a wide range of technical studies to guide/inform/support delivery of its programs and services. Those related directly or indirectly to CLOCA's Conservation and Management of Lands programs and services can be found in Appendix A. Additional information regarding CLOCA's full range of programs and services is included in CLOCA's Watershed-based Resource Management Strategy (2024), which is available at www.cloca.com. Central Lake Ontario Conservation Authority acknowledges that there has been limited Traditional Indigenous Knowledge used previously to develop these programs and services; however, the Conservation Authority is committed to fostering meaningful partnerships with Indigenous communities so that they can help inform these programs and services going forward.

3 Purpose of this Conservation Area Strategy

Ontario Regulation 686/21 requires all Conservation Authorities to prepare a Conservation Area Strategy and Land Inventory as a component of the "Conservation and Management of Lands" program and service area. Such a strategy is important because CLOCA Conservation Lands play a foundational role in achieving healthy watersheds, building climate resilience in our communities, connecting people with the natural environment, and supporting physical and mental health within the regional population. To ensure that Conservation Lands continue to support these community needs, they need to continue to be acquired and managed in purposeful ways. The Conservation Area Strategy (the Strategy) establishes the high-level direction for this work and applies to all conservation lands **owned or controlled** by CLOCA, herein referred to as Conservation Lands. The Strategy ensures that CLOCA's Conservation Land programs and services support integrated watershed management principles, respond to watershed challenges and opportunities, support community sustainability and resilience, and align with the organization's mandate under the *Conservation Authorities Act*.

The Strategy does not generally define specific conservation actions to be taken, but it does present strategic objectives that CLOCA will use to direct future management, planning and policy development for its Conservation Lands. While CLOCA has the ability, for the most part, to drive its Conservation Land programs and services in directions that work to support larger community-oriented goals, including achieving healthy watersheds, climate resilience, and public health, this work is really a shared responsibility. No single agency or organization has the knowledge, authority or financial resources to achieve these sought after outcomes on their own, and so it requires inter-governmental co-operation and the involvement of many stakeholders, individuals, organizations and communities. This shared responsibility is acknowledged in many ways throughout this Conservation Area Strategy.

4 CLOCA Strategic Plan – The Overarching Direction

The vision, guiding principles and objectives that inform the design and delivery of all CLOCA programs and services, including those related to CLOCA’s Conservation Lands, are derived from CLOCA’s Strategic Plan, which was updated in 2021. Central Lake Ontario Conservation Authority’s vision is for **Healthy Watersheds for Today and Tomorrow**, to be achieved by working in partnership with our municipalities and community to advance watershed health through engagement, science and conservation, which includes:

- working to improve watershed health and in turn our quality of life;
- providing environmental and scientific knowledge;
- inspiring our community to champion the actions necessary to achieve healthy watersheds;
- supporting partnerships and collaboration; and
- operating responsibly and sustainably.

The Strategic Plan guiding principles and objectives have been included below to highlight their direct relationship to Conservation Lands. Key objectives that are directly or indirectly supported by Conservation Land Programs and services have been highlighted in bold to reinforce the foundational role that CLOCA Conservation Lands play in the work that CLOCA does across its jurisdiction.

CLOCA Strategic Plan Guiding Principle #1 - Conserve, restore and enhance natural resources through integrated watershed management.

Key Objectives #1:

- Improve understanding of watershed ecosystem and its response to human and natural environmental stressors to support informed resource management decision making.
- Expand network of protected greenspace and Conservation Authority land holdings.
- Implement updated integrated watershed plans and other action plans to guide land use planning, protection, restoration, and stewardship initiatives.
- Collaborate with partners to reduce the impact of environmental stressors such as climate change.

CLOCA Strategic Plan Guiding Principle #2 - Support healthy communities and the protection of people and property from flooding and erosion.

Key Objectives #2:

- Increase capacity to predict flood events and flood-vulnerable areas.
- Provide timely and expert technical advice and land use tools and resources to our partner municipalities.
- Improve understanding of natural hazards to inform risk management actions.
- Mitigate potential risk to people and property from natural hazards through regulation, administration, and compliance.
- Improve flood event warning systems and communication.

CLOCA Strategic Plan Guiding Principle #3 - Remain dedicated to the protection, management, and safety of conservation areas.

Key Objectives #3:

- Continue to implement a land protection and acquisition strategy
- Identify appropriate opportunities for enhanced use/revitalization/optimal use of Conservation Areas and facilities
- Expand our conservation area land holdings to provide sustainable greenspace.
- Enhance ecological integrity of Conservation Areas.
- Provide high-quality, positive and safe experiences in our Conservation Areas.
- Design, implement, and manage Conservation Area infrastructure that respects natural heritage features.

CLOCA Strategic Plan Guiding Principle #4 - Create a more knowledgeable and connected watershed community through engagement and education.

Key Objectives #4:

- Connect 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.
- Communicate a recognized brand that reflects our corporate culture, our goals, and strategic actions to our watershed audiences.

CLOCA Strategic Plan Guiding Principle #5 - Demonstrate business excellence through effective customer service, engaged employees, and innovation.

Key Objectives #5:

- Foster provision of efficient, effective, and client-focused programs and services.
- Engage employees with measurable continuous improvement outcomes.
- Establish a strong culture of collaboration.
- Improve corporate sustainability outcomes through operation, procurement, and business practice improvements.
- Continue to strive for diversity, equity, and inclusiveness.
- Continue to modernize data and mapping management resources and services to support stakeholder and corporate priorities.

Central Lake Ontario Conservation Authority relies on numerous technical documents, as well as the extensive experience of its staff, to carry out its mandatory programs and services. A list of these documents has been included in Appendix B.

5 CLOCA Land Acquisition – Historical Perspective

Central Lake Ontario Conservation Authority has a long and steadfast commitment to land acquisition within the Williams Treaties First Nations Traditional Territory that dates back to 1964 and its first watershed planning document entitled *Central Lake Ontario Conservation Report*, where over 4,452 ha were recommended to be acquired by the Conservation Authority. Initial efforts focused on the securement of lands in and around the Oak Ridges Moraine, to protect sensitive headwater areas from erosion to decrease the severity of flooding downstream and to maintain seasonal water flows within the waterways. Those early efforts provided an important platform for the development of a 20-year Land Acquisition Strategy that was completed in 1973, which set broader goals for acquisition beyond the Oak Ridges Moraine, along with the recommendation to acquire approximately 3,723 ha of priority natural heritage features as part of a “regional parks system”. Priority acquisition sites focused on the north/south valleylands, the waterfront areas, and the south slope of the Oak Ridges Moraine.

In the early 2000s, CLOCA worked closely with its municipal partners to transfer specific urban parcels into municipal ownership in situations where management of these lands by the municipality made sense for operational and liability reasons. Several parcels within the urban valleys of the City of Oshawa and the Municipality of Clarington were part of this land disposal process. Many of the same target areas identified in the 1973 acquisition strategy were prioritized again in CLOCA’s 2015 Land Acquisition Strategy, which continues to guide priority acquisitions today. While CLOCA has been able to protect many important natural areas over the past 66 years and has managed to secure a solid Conservation Land footprint within the natural heritage system across its jurisdiction, there continues to be a deficit between the amount of conservation land that CLOCA has secured to date versus the amount that has been recommended through strategic planning exercises over the same period.

Central Lake Ontario Conservation Authority’s land acquisition efforts have continued to be driven by its watershed planning work, including a growing knowledge and understanding of the natural heritage/water resource systems and their functions, the evolving state of key indicators of watershed health, and the future land use change that is expected across the jurisdiction. In keeping with results of this watershed planning work, Conservation Land acquisition efforts have largely focused on the Oak Ridges Moraine, lands within the Lake Iroquois Beach physiographic unit, the Lake Ontario waterfront (specifically lands in and around existing coastal wetlands), and portions of large connecting valley lands across the CLOCA jurisdiction, all of which are situated within the Williams Treaties First Nations Territory.

6 CLOCA Conservation Lands – Current Context

Central Lake Ontario Conservation Authority currently owns 2,924 ha of conservation land (Figure 1). This represents just 4.5 per cent of the land cover within CLOCA’s jurisdictional boundary; however, this relatively small land base protects a proportionately high concentration of significant natural features, ecological functions and unique biodiversity that is further discussed in Section 7. Natural heritage conservation (which includes protection, restoration, and enhancement) remains the primary management focus within all CLOCA Conservation Lands. Where appropriate, many of these lands also support a range of natural experiences and recreational opportunities that can be enjoyed by the community.

New relationships between CLOCA and Indigenous communities are being built, and conversations around how to provide spaces for Indigenous peoples to practice their Rights on Conservation Lands have also begun. It’s no secret that inviting the public into these natural areas presents ongoing management challenges; however, CLOCA firmly believes that it is important to continue to provide controlled access, as it connects visitors to nature, connects communities to each other, and supports public health and well being. Because of this controlled public access, many of the visitors to CLOCA Conservation Areas feel a deep connection to these lands and are more likely to advocate for the protection of these and other important natural areas across the landscape. This advocacy in turn helps CLOCA achieve its broader watershed health goals and objectives.

6.1. Conservation Lands and the Conservation Authorities Act

Central Lake Ontario Conservation Authority implements a compliance and enforcement program within its Conservation Lands with the goals of ensuring that all Conservation Authority managed lands are protected against inappropriate use, protecting the safety of the public entering onto CLOCA Conservation Lands, upholding CLOCA’s “duty of care” responsibilities as a landowner, including managing the organization’s risk and liabilities, and facilitating high quality experiences for those accessing these lands. This program ensures compliance with the *Conservation Authorities Act*, (Ontario Regulation 686/21 – Mandatory Programs and Services and Ontario, and Regulation 688/21 – Rules of Conduct in Conservation Areas), and all other applicable laws, including federal, provincial and municipal statutes and regulations for the protection of public land, natural resources and public safety. Compliance tools can include education/ outreach, warnings, registered letters of prohibition or trespass and initiation of court action (*Provincial Offences Act*). As relationships with Indigenous communities grow, CLOCA hopes that this program will also work to protect these conservation lands in ways that support Indigenous Rights.

6.2. Conserving and Managing Conservation Lands

Programs and services related to controlled public access, education and the day-to-day management of their associated infrastructure remain the most visible public-facing side of CLOCA's ongoing Conservation Land management work. Less visible, but equally important are CLOCA's ecological monitoring, planning, enhancement, and restoration work, which are integral aspects of the ongoing management of our Conservation Lands. This work includes a range of activities including ecological land classification and habitat mapping, ecological monitoring (coastal wetlands, terrestrial, aquatics, wildlife and species at risk, water resources), invasive species monitoring and control, and active restoration and enhancement (reforestation, wetlands creation and enhancement, grassland creation and management, stream restoration). This critical natural heritage work often informs and underpins individual Conservation Land management planning processes, guides site level management decisions and project implementation, and helps to achieve the primary natural heritage conservation goal already in place for CLOCA Conservation Lands. Natural heritage work carried out in Conservation Lands also contributes directly to CLOCA's broader Integrated Watershed Monitoring Program and watershed health goals and objectives.

6.3. Conservation Lands: By the Numbers

Central Lake Ontario Conservation Authority has amassed this critical Conservation Land base one parcel at a time around key land assembly target areas. Central Lake Ontario Conservation Authority's 2,924 ha of conservation land lie within 149 individual lots of record (106 separate roll numbers are connected to these individual parcels following the amalgamation of some adjoining parcels by the Municipal Property Assessment Corporation) (Figure 1). Most of these parcels are located within the Oak Ridges Moraine, the Lake Iroquois Beach, and the Lake Ontario waterfront, and form part of CLOCA's eight primary Conservation Areas. All of these Conservation Areas are located within the Williams Treaties First Nations Traditional Territory, and include:

- Lynde Shores Conservation Area (387 ha) – Lake Ontario Waterfront/Provincially Significant Coastal Wetlands
- Heber Down Conservation Area (278 ha) – Lake Iroquois Beach/PSWs
- Crow's Pass Conservation Area (264 ha, including the Rogers Tract) – Oak Ridges Moraine
- Purple Woods Conservation Area (45 ha, including the Rahmani Tract) – Oak Ridges Moraine
- Enniskillen Conservation Area (659 ha) – Oak Ridges Moraine
- Long Sault Conservation Area (775 ha) – Oak Ridges Moraine
- Stephen's Gulch Conservation Area (185 ha) – Lake Iroquois Beach/PSWs
- Bowmanville/Westside Marshes Conservation Area (70 ha) – Lake Ontario Waterfront/Provincially Significant Coastal Wetlands

The primary purpose of these Conservation Areas, which together total 2,663 ha (91 per cent of all CLOCA landholdings) is the conservation of large core habitat areas and the significant natural heritage features and functions found within these core areas. They function as centres of biodiversity within our rapidly changing landscape. Central Lake Ontario Conservation Authority's watershed plans, action plans, and land management guidance documents reinforce how these Conservation Lands function as ecological foundations upon which watershed health across the jurisdiction is built and sustained. Despite their ecological sensitivity and importance to the regional natural heritage system, they all support controlled public access opportunities for passive recreation and include varying levels of infrastructure to accommodate this use (including 10 primary parking facilities, approximately 60 km of actively maintained, multi-use trails, and two education facilities). For this reason, these areas are steadily promoted to the public for passive recreation. While none of these Conservation Lands have programming or services that require the direct support or supervision of CLOCA staff on a regular basis, CLOCA does take its duty of care responsibilities as a landowner seriously, and has operational staff dedicated to the ongoing maintenance and development of public use infrastructure and related management of these Conservation Lands.

The remaining 263 ha of Conservation Lands (nine per cent of all CLOCA landholdings) are generally smaller in size, protect significant natural heritage features, or contain natural hazards and thus public disturbance is discouraged, or they contain limited or no public use infrastructure so are not actively promoted to the public for access. In some cases, CLOCA works with its municipal partners to accommodate municipal programs and municipal public infrastructure needs within some of these urban/near-urban parcels if the use is considered appropriate (e.g., public trails that are part of an active transportation networks, minor league soccer, dog off-leash parks, etc.). In some situations, CLOCA also works with its municipal partners to transfer specific near-urban parcels into municipal ownership where management of these lands by the municipality is required for operational and liability reasons. And so, the make-up of these lands does change from time to time. For those smaller tracts that remain within CLOCA's Conservation Land network, they are generally near to one of CLOCA's primary conservation areas or are within urban valley lands, and were acquired for flood control/protection purposes. These small Conservation Areas and tracts are managed by CLOCA in a combination of ways including as part of the closest primary Conservation Area, as separate Conservation Areas or tracts with unique management goals, or in partnership with the local municipality. These smaller landholdings are all located within the Williams Treaties First Nations Traditional Territory, and include:

- Hampton Conservation Area (13 ha) – connecting valley lands and floodplain
- Oshawa Valleylands (12 ha) – connecting valley lands and floodplain
- Canecrest Conservation Area (26 ha) – Oak Ridges Moraine
- Audley Tract (13 ha) – Lake Iroquois Beach and floodplain
- Enfield Tract (100 ha) – Oak Ridges Moraine, Provincially Significant Wetlands (PSWs)
- Mount Carmel Tract (41 ha) – Oak Ridges Moraine
- Simcoe Hall Tract (1 ha) – connecting valley lands and floodplain
- Bowmanville North Tract (6 ha) – connecting valley lands and floodplain
- Mount Hope Tract (51 ha) – connecting valley lands and floodplain

7 Assessment of How Conservation Lands Augment Natural Heritage within the CLOCA Jurisdiction

Central Lake Ontario Conservation Authority's understanding of watershed conditions has evolved and grown throughout its 66-year history because of advancements in ecological monitoring, hazard risk assessment, watershed planning, research, and collaboration with partners. Our understanding of how the Conservation Lands support various aspects of watershed health has also matured, including the recognition that ecological health, natural hazard feature management, and community health and safety are all components of healthy watersheds that can be supported in part through conservation land ownership and management. A significant amount of ecological restoration and enhancement work has taken place across the Conservation Lands over the decades, which has improved the health of existing natural heritage features, or completely transformed what were once degraded areas. This same restoration work has also contributed significantly to broader watershed health goals and objectives. Land use change, land value, and fluctuating funding programs have also influenced where and how land acquisition has occurred over the years, yet CLOCA has continued to add to its Conservation Land network wherever possible. What hasn't changed over the years is the fact that the acquisition, restoration/enhancement, and long-term management of Conservation Lands is central to achieving healthy, livable communities. Because of its ongoing commitment to this long-standing strategic priority, CLOCA has developed an extensive network of Conservation Landholdings with a high concentration of natural areas and natural hazard lands that contribute significantly to overall watershed health in a range of ways, including many that were not even considered when they were first acquired.

Central Lake Ontario Conservation Authority Conservation Lands (2,924 ha) only occupy 4.5 per cent of CLOCA's total jurisdictional area (64,457 ha); however, they protect a proportionately high percentage of key natural heritage features, provincially significant natural areas, regional natural heritage and water resource systems, regulated natural hazard features, and of course the ecological and social services provided by these features. In today's asset management planning field, these critical features and services are now referred to as "natural assets". The Conservation Lands contain:

- 20 per cent of all PSWs within CLOCA's jurisdiction, including four Provincially Significant Coastal Lake Ontario Wetlands (Lynde Creek Marsh, Cranberry Marsh, Westside Marsh, and Bowmanville Marsh);
- 25 per cent of all provincial Areas of Natural and Scientific Interest (ANSI) within CLOCA's jurisdiction;
- a range of regulated natural hazard features, including floodplain, wetlands, lands with erosion hazards, lands with steep slope hazards, and lands prone to the impacts of Lake Ontario flooding; and,
- 12 per cent of CLOCA's Ultimate Natural Heritage System, and 14 per cent of CLOCA's Functional Natural Heritage System (see CLOCA's Watershed Plans for more information at <https://www.cloca.com/watershed-monitoring-protection/watershed-plans>).

Central Lake Ontario Conservation Authority Conservation Lands play a critical role in protecting key natural heritage features and resources, including those that are considered key indicators of watershed health as outlined in CLOCA's recent Watershed Plan updates. They support these key indicators of watershed health in the following ways:

- CLOCA Conservation Lands contain 15 per cent of total natural cover and 16% of total forest cover within the jurisdiction.
- 41 per cent of all forest interior habitat and 76 per cent of all deep forest interior habitat (a rare habitat type) in CLOCA's jurisdiction are contained in CLOCA Conservation Lands.
- They contain 10 per cent of all wetland cover within the CLOCA jurisdiction, including the four Provincially Significant Coastal Wetlands listed above.
- They support critical components of the Wildlife Habitat Network, including 15 per cent of all core habitat areas and 19 per cent of all Regional Corridors, and contain nine per cent of all Wildlife Habitat Areas.
- 41 per cent of CLOCA Conservation Lands support critical components of the jurisdiction's Water Resource System, including significant groundwater recharge areas and seeps found within the headwaters of the Oak Ridges Moraine, groundwater recharge and discharge areas within the Lake Iroquois Beach, and ecologically significant surface water features (i.e., wetlands) along the Lake Ontario Waterfront.

8 Assessment of How Conservation Lands Integrate with Other Provincially Owned Lands or Other Publicly Accessible Lands and Trails Within the CLOCA Jurisdiction

Central Lake Ontario Conservation Authority Conservation Lands play a significant role in supporting watershed ecology and the natural environment as outlined above. Central Lake Ontario Conservation Authority is also the primary provider of controlled public access to large, high-quality public greenspace areas (i.e., < 50 ha as defined by Green Infrastructure Ontario in their 2019 report *State of Large Parks in Ontario's Golden Horseshoe*) within its jurisdiction, apart from Darlington Provincial Park. Maintaining and promoting healthy watersheds is a collaborative effort, and many of CLOCA's natural heritage features, which are located within the Traditional and Treaty Territory of the Williams Treaties First Nations, are also managed by municipalities, not-for-profit organizations, and other privately-owned lands, including those used for agriculture.

In many cases, the natural features that exist on CLOCA's conservation lands extend beyond property boundaries to form a connected system with natural areas owned and managed by others. Recognizing that the majority of CLOCA's jurisdiction is in private ownership (greater than 90 per cent), CLOCA provides a range of private land stewardship programs and services that are meant to encourage and support private landowners who want to take an active role in the management of their lands in ways that support long-term watershed health.

While the public generally views local area municipalities as the primary providers of public park space, much of this parkland is considered "manicured" (i.e., plays a limited role in supporting natural features, wildlife populations and natural heritage systems). Given that most of these manicured park spaces (which collectively add up to just over 600 ha (or just 0.3 per cent of CLOCA's jurisdiction) are located within urban boundaries where CLOCA owns limited landholdings, very few of them are adjacent to any CLOCA Conservation Lands. However, these same municipalities do collectively own an additional 1,500 ha (approximately) of unmanicured natural areas and valley lands within the urban boundary, which collectively amounts to a little over two per cent of all natural areas within CLOCA's jurisdiction. While limited in total area, these municipally owned natural lands do protect important natural heritage system connections and any associated natural hazard features through the densely populated urban areas. A number of these municipal properties abut some of CLOCA's more southerly Conservation Lands. Central Lake Ontario Conservation Authority partners with various watershed municipalities for the management of some properties, either through formal maintenance agreements or by sharing its technical expertise in support of natural heritage management within these public greenspace lands. Similarly, CLOCA formally collaborates with the City of Oshawa, Ducks Unlimited Canada, Friends of Second Marsh, and Ontario Parks (through Darlington Provincial Park), and institutional landowners in the management of Oshawa Second Marsh PSW, McLaughlin Bay PSW and the adjoining upland known as McLaughlin Bay Wildlife Reserve.

The same collaborative spirit with municipalities also extends to active transportation networks, with CLOCA supporting key municipal trail system connections into and through a number of its more urban Conservation Areas (including Lynde Shores, Heber Down, Bowmanville/Westside, and Hampton Conservation Areas). Central Lake Ontario Conservation Authority also supports regional- or provincial-scale trail integration within its Conservation Areas, including accommodating the Oak Ridges Trail through many of its Oak Ridges Moraine-based Conservation Areas (including Crow's Pass, Purple Woods and Long Sault Conservation Areas), and a portion of the Great Lakes Waterfront Trail through Lynde Shores Conservation Area. Similar partnership conversations are also ongoing with Durham Region and area municipalities regarding the Durham Meadoway Project, which proposes an eastward extension of the Scarborough Meadoway through southern Durham Region.

9 Land Use Categories for the Purpose of the Land Inventory

Ontario Regulation 686/21 requires the establishment of land use categories for the purpose of classifying lands in the mandatory Conservation Authority Land Inventory. These categories are defined by the types of activities that are engaged in on each parcel of land and the level of staff support required support these activities, or other matters of significance related to the parcel. Conservation Authorities across Ontario have been encouraged to use similar land use categories in their Land Inventory. For CLOCA's Land Inventory, the following primary categories apply:

- **Primary Conservation Area** – includes controlled public access, passive recreation
- **Secondary Conservation Area** – includes limited controlled public access, passive recreation
- **Management Area** – no public access
- **Conservation Authority Administration Area** – may include controlled public access, passive recreation

While it is fully acknowledged that Conservation Lands include features other than those related to public access and recreation (e.g., natural heritage and natural hazard features) and that multiple land use categories could apply to a single parcel, only one representative land use category will be assigned to each parcel in the Land Inventory. Individual parcels are also part of larger land assemblies or groupings, that often include a wide range of land uses and natural features. In order to maintain consistency with the Conservation Land categories established in CLOCA's recently updated Conservation Areas Inspection Policy (2023) (which articulates a series of standard procedures, including annual frequency of inspections, for each land use category and establishes a level of service and a formal commitment by CLOCA staff to provide a reasonable duty of care to visitors as a minimum baseline standard), Conservation Land Use Categories used in the Land Inventory will be assigned according to land groupings already outlined in the Inspection Policy in the following manner:

Primary Conservation Area – includes controlled public access, passive recreation = 1 – Primary Conservation Areas (Accessible to Public)

- Lynde Shores Conservation Area
- Heber Down Conservation Area
- Long Sault Conservation Area
- Enniskillen Conservation Area
- Stephen's Gulch Conservation Area
- Purple Woods Conservation Area
- Bowmanville Westside Marsh Conservation Area
- Crow's Pass Conservation Area

Secondary Conservation Area – includes limited controlled public access, passive recreation = 2 –
Secondary Conservation Areas (Accessible to Public)

- Hampton Conservation Area
- Rahmani Tract
- Oshawa Valleylands (also the site of CLOCA’s Administrative Office)
- Canecrest Conservation Area

Management Area – no public access, no direct staff support/supervision = 3 – **Tertiary Land Tracts (No Public Access)**

- Audley Tract
- Enfield Tract
- Mount Carmel Tract
- Simcoe Hall Tract
- Bowmanville North Tract
- Mount Hope Tract
- Rogers Tract (separate parcel affiliated with Crow’s Pass Conservation Area)

10 Pressures and Opportunities

Within CLOCA’s jurisdiction, there are three key stressors that will continue to impact the natural environment for years to come, including increasing population growth, changing land use, and climate change. How well the Conservation Authority responds to these changes within the context of CLOCA Conservation Lands will depend on how well it anticipates (i.e., plans for), monitors and understands their impacts and opportunities, and how well it leverages Traditional Knowledge, science, best practices and technology in response. In many ways, these pressures are beyond any one organization or government’s direct control. While this Conservation Area Strategy attempts to acknowledge the effects of these agents of change over time on CLOCA lands and on watershed health across the jurisdiction, this Strategy cannot be static. Instead, this Strategy values adaptive management and the ability to adjust approaches in response to challenges and opportunities that are not yet known or could not be anticipated at the time of writing.

10.1. Population Growth = Land Use Change

One of the biggest factors affecting watershed health, the distribution of greenspace throughout the landscape, and the demand for public access to this greenspace is population growth. By 2051 Durham Region projects that its population will reach approximately 1.3 million, more than doubling the current populations found within its southern local area municipalities. With growth comes inevitable changes to the landscape. More people require more places to live and play, more roads and other critical infrastructure to support their day-to-day needs, and an increased need for local employment areas and other community services.

All of this growth and the supporting development takes a toll on watershed natural resources and their health, and often results in degraded wildlife habitats and natural systems, fragmented existing natural areas, and at times the complete removal of natural features or portions thereof. The ability of the natural areas to cope with these compounding changes, i.e. their “resilience”, is also compromised. Increased development around existing urban/near-urban Conservation Lands will result in an increase in fringe impacts that will need to be addressed and managed adaptively over time. However, with proper planning and ongoing Conservation Lands securement efforts, Conservation Lands can and will play a significant role in offsetting some of the physical impacts of this land use change.

As the population grows, more people will seek a connection with nature, increasing demand for access to CLOCA’s Conservation Lands. However, the ecosystems within these lands have limited capacity to handle the impacts of increased public use. If demand exceeds this capacity, it could harm ecosystem health, degrade the quality of Conservation Land resources, and diminish visitors’ experience. Central Lake Ontario Conservation Authority must proactively manage its lands to address these future impacts, while also preserving Indigenous peoples’ Rights. Ensuring the continued acquisition of new Conservation Lands will play a significant role in addressing this capacity issue over the long-term, and help to maintain accessible, healthy natural areas. And while Conservation Land securement will be a critical tool in the long-term sustainability of CLOCA’s Conservation Land programs and services, the cost of implementing these programs in this rapidly urbanizing area is expected to increase. As a result, program funding is also a challenge related to population growth. Central Lake Ontario Conservation Authority will have to work closely with Durham Region to update its current Greenlands Acquisition Fund to reflect this reality and work with other funding partners to address any additional gaps.

Understanding population changes over time is crucial for long-term planning, helping ensure future community and watershed health needs are met. It’s not only important to track population growth but also to understand demographic shifts (e.g., age, gender, ethnicity) and their distribution across the landscape. Central Lake Ontario Conservation Authority must continue to consider these changes in all aspects of Conservation Land management.

10.2. Climate Change

The evidence shows that climate change is resulting in an increase in frequency and severity of extreme weather events such as heat waves, torrential rainstorms, windstorms and even drought within CLOCA’s jurisdiction. The changing climate and weather extremes that exist today, and which will continue to be experienced across our region, elevates the importance of CLOCA’s landholdings in supporting climate change resilience and adaptation, including reducing risks associated with downstream flooding and erosion hazards. Some of the impacts of a changing climate include reduced groundwater recharge and discharge impacting creek baseflow and wetlands; degraded water and air quality; degraded aquatic and terrestrial habitats; changes to species abundance, distribution and range; proliferation of non-native invasive species; loss of biodiversity and seasonality impacts to species lifecycles; wetland loss; and an increased need for flood storage. Central Lake Ontario Conservation Authority’s landholdings protect these sensitive natural features and their ecosystem services. Protecting these resources helps to reduce the risks associated with natural hazards, reduces or mitigates other climate impacts (e.g., heat vulnerability) and builds resilience in the larger ecosystem. However, it is important to ensure that the integrity and resilience of these natural areas are maintained through adaptive management, which relies on robust monitoring programs and high-quality data.

Because of their long-term and stable ownership and management, CLOCA Conservation Lands host climate stations, snow-monitoring sites, groundwater monitoring wells, and stream gauge stations that provide important information for the rest of the watershed, including flood forecasting, low-water monitoring, and climate change assessments. Similarly, the majority of CLOCA's Integrated Watershed Monitoring Program sites are also located within CLOCA Conservation Lands specifically because they guarantee long-term access to the same monitoring sites year-over-year and, therefore, allow CLOCA to develop the long-term data sets that are critical for identifying statistically significant trend information on watershed health over years and decades. Continued loss of biodiversity, habitat or ecosystem features or functions outside of CLOCA Conservation Lands will impact the capacity of these conserved areas to mitigate the broader impacts of climate. Designing and scaling monitoring programs according to the questions that need to be answered both within and outside of Conservation Lands will continue to be an important component of adaptive watershed and Conservation Land management.

10.3. Traditional Knowledge, Western Science and Technology

How well CLOCA and its partners respond to these influencing facts will depend on how well we monitor changes in key metrics related to Conservation Land management and watershed health, and work to understand the role that they are having on not just our watershed and Conservation Land health and management, but on our broader community health and sustainability needs. How CLOCA and its partners leverage Traditional Knowledge and the ongoing developments in western science and technology will play a large role in how we collectively manage not only the risks, but also capitalize on the opportunities that the pressures outlined above may present over time.

11 Community Engagement and Consultation: Overview of Key Results

Partner, stakeholder, and public engagement was a very important part of this planning process to ensure that the Strategy reflected the views and opinions of the broader community. Central Lake Ontario Conservation Authority carried out a wide range of engagement and outreach activities between 2018-2022 and more recently in 2024, including public surveys (online, at Conservation Areas, and community events), a youth art competition, one-on-one sessions with local and regional municipal staff and adjacent Conservation Authorities, among others. Central Lake Ontario Conservation Authority also conducted a number of focused stakeholder and public listening and information sessions. More recently, CLOCA discussed the Strategy with the Mississaugas of Scugog Island First Nation, signatories of the Williams Treaty, and incorporated their comments into this final Strategy, following their review of the draft in the fall of 2024.

This suite of consultation and engagement methods generated input from a range of people who were knowledgeable about the work that CLOCA does, including valued Conservation Land visitors, as well as community residents that had limited or no awareness of CLOCA, but who had opinions on how greenspace could be managed within their community.

Overall, the results of this engagement effort offered important insight into the broader community's understanding of the role, responsibility and services that CLOCA delivers, the community's perspective and values regarding conservation lands and how these lands can better connect people with nature through recreation, natural experiences, education and tourism. Despite the diversity and varying interests in Conservation Land of those who provided input, a number of common themes emerged:

Natural Resource Protection through Ownership, Improved Connectivity and CLOCA'S Leadership is Valued:

- CLOCA is seen as a regional leader in natural resource protection and restoration.
- Protecting greenspace is extremely important
- Acquisition of additional Conservation Lands is a top priority.
- Strengthen the greenspace system by establishing greater connectivity (e.g., between wildlife habitats, sensitive natural features, recreation, etc.).
- CLOCA should be the regional leader in the planning, protection and management of Conservation Lands for the benefit of climate change resiliency, watershed and community health, and individual mental and physical health.

Natural Areas are Important in Achieving Healthy Communities

- Conservation lands play a critical role in maintaining broader community health (watershed/ecological health, human mental health, and human physical health) which, in turn, contributes to vibrant, liveable, and complete communities.

Environmental Education/Literacy and Equitable Access are Desired

- Conservation lands provide incredible forums for environmental education.
- Special events and guided activities that provide opportunities to engage with staff within the Conservation Lands are highly sought after by the community.
- Controlled public access to conservation lands must be preserved and more broadly distributed across the jurisdiction to accommodate a wide range of community needs.
- Controlled public access needs to be properly balanced and controlled so that sensitive natural features are protected.

Meaningful Interactions = Quality Experiences

- Diverse trail networks, well maintained infrastructure and facilities, and "natural/wild" settings (i.e., not manicured) provide visitors with quality experiences.

Importance of Fostering Partnerships

- Conservation Lands and greenspace management must occur in partnership with the broader community (government, Indigenous communities and First Nations, NGOs, community groups, and individual community members), improving the return on investment in these important community assets.

Communication and Marketing Builds Support

- Increasing awareness will increase community knowledge and build future support. CLOCA could do more to promote itself and the work it does with its Conservation Lands.

These themes are consistent with CLOCA's Strategic Plan, reaffirming that CLOCA's Conservation Land programs are integral to CLOCA achieving its overarching vision and mission. The results of this consultation work, together with extensive input from CLOCA staff, were used to develop the vision, guiding principles, strategic objectives, and actions/deliverables outlined within this Strategy.

12 Conservation Area Strategy Direction – Vision, Guiding Principles, Strategic Objectives, and Actions/Deliverables

The purpose of the Conservation Area Strategy is to ensure that CLOCA's Conservation Land programs and services support integrated watershed management principles, respond to the pressures being experienced across the watershed and beyond, support community sustainability and resilience, and reflect the organization's mandate under the *Conservation Authorities Act*. The pathway to achieving the above, i.e., the Direction, is established at a high level through the following Vision, Guiding Principles Strategic Objectives, and Actions/Deliverables.

12.1. Vision

A vision is meant to express what we collectively hope to achieve in the future. The vision for CLOCA Conservation Lands has been expressed as follows:

Central Lake Ontario Conservation Authority Conservation Lands are the cornerstones of a connected greenspace system from which healthy, climate resilient watersheds are built and conserved. They connect our growing communities to nature, active living and personal wellbeing. Conservation Lands are managed as critical infrastructure in our complete, livable communities.

12.2. Guiding Principles, Strategic Objectives, and Actions/Deliverables

The guiding principles are the fundamental basis for informing present and future decisions related to how CLOCA plans for and manages its Conservation Lands.

The Strategic objectives expand on the guiding principles and are intended to provide high-level context and direction for actions related to the management of lands owned or controlled by the Authority. The following section outlines these principles, objectives and the recommended actions and deliverables that will help CLOCA achieve the vision outlined above.

12.2.1. Guiding Principles - Overview

1. **CONSERVE:** CONSERVE, UNDERSTAND, AND ENHANCE
2. **SECURE:** SECURE AND GROW THE NETWORK
3. **CONNECT:** NURTURE CONNECTIONS AND ENGAGEMENT
4. **LEAD:** BE A LOCAL LEADER

12.3. Guiding Principle #1 – CONSERVE: CONSERVE, UNDERSTAND, AND ENHANCE

Conserve, understand, and enhance the natural and cultural heritage assets within the Conservation Lands.

12.3.1. CONSERVE – Strategic Objectives:

- a. Ensure that Conservation Lands actively contribute to watershed health, climate resilience, and community health by actively supporting programs and services that protect, manage, and enhance these high-value lands.
- b. Use a science-based approach that is informed and enhanced by Traditional Knowledge to conserve and enhance these lands, which includes using good data and information collected through monitoring, conversations with Traditional Knowledge Keepers and Indigenous communities, research, modelling, analysis and planning processes to drive informed decision-making.
- c. Undertake a comprehensive conservation land management planning process for each Conservation Area grouping that evaluates and recommends actions regarding watershed and property level environmental needs, cultural and community needs, community engagement and controlled public access needs and carrying capacities. Conservation Land management planning and the resulting Conservation Land management plans will drive informed decision-making and implementation at the property level.
- d. Utilize compliance and enforcement programs as important tools in the conservation and protection of the Conservation Lands, their ecosystem services and their cultural values.
- e. Ensure that all Conservation Land programs and services and related activities acknowledge and have regard for the “Conserve, Understand, and Enhance”.
- f. Foster and maintain partnerships that support environmental conservation, science and enhancement.

12.3.2. CONSERVE – Action Plans and Deliverables

Conservation Area Strategy recommended Action Plans and Deliverables related to **CONSERVE: CONSERVE, UNDERSTAND, AND ENHANCE** Guiding Principle:

Conservation Land Monitoring

- Expand the Integrated Watershed Monitoring Program to include a focus on Conservation Lands and the performance monitoring of the CONSERVE and CONNECT strategic objectives, including enhanced ecological monitoring, public use and infrastructure monitoring, and encroachment and property protection monitoring not already addressed through the Conservation Area Inspection Policy.

Land Use Categories and Naming Convention Review

- Review and modify the land use categories system outlined for the Land Inventory in this Strategy so that it better reflects the broader land management goals and objectives. Further classification at the property level will be determined through the Conservation Land Management Plan process.
- Review and update as necessary the current naming conventions used to assign names and categories to Conservation Lands. Explore the integration of local Indigenous language into this process.

Conservation Land Management Plans

- Renew, update, or create new Conservation Land Management Plans that align with the direction established through this Strategy and associated action planning documents/deliverables.

Coastal Wetland Restoration and Resilience Plans

- Complete restoration and resilience plans for coastal wetlands within CLOCA's management using a newly established process. Work with partners to complete plans for remaining coastal wetlands within municipal ownership in recognition of the critical role that coastal wetlands play in the regional greenspace system and in watershed health and resilience (subject to municipal and stakeholder agreement). Plan completed for Lynde Creek and Cranberry Marsh in March 2024.

Conservation Lands Forest Management (Restoration and Resilience) Plan

- Develop a Conservation Lands Forest Management Plan that combines a range of work that is already being carried out by CLOCA in relation to forest management, including Conservation Land Tax Incentive Program work, Managed Forest Tax Incentive Program work, timber management, afforestation and forest restoration work, among others.

Compliance and Enforcement

- Adaptively adjust compliance and enforcement programs as part of CLOCA's ongoing duty of care responsibilities in response to a growing population that is expected to place even more pressure on Conservation Lands from unsanctioned/inappropriate uses, which compromise ecological health, biodiversity, and resilience; and that diminish the visitor experience for those who are compliant, respectful visitors to the Conservation Lands.
- Compliance and enforcement programs respond to the needs of Item #11 – Subservice: Section 29 Minister's regulation Rules for Conduct in Conservation Areas (O. Reg. 688/21) in CLOCA's recent Programs and Services list, which is outlined in CLOCA's Watershed-Based Resource Management Strategy.

Conservation Lands Asset Management Plan

- Complete a Conservation Lands Asset Management Plan which will capture both traditional capital asset value (ex. public use /operations infrastructure, facilities, equipment, etc.) and untraditional natural asset value (forests, wetlands, grasslands, etc. and the ecological services they provide), maintenance, replacement cost/cycle in order to inform/prioritize future investments and budgeting processes. This deliverable will also help to achieve strategic objectives outlined under the CONNECT Guiding Principle.

12.4. Guiding Principle #2 – SECURE: SECURE AND GROW THE NETWORK

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 hazard lands, protect cultural heritage assets and actively contribute to watershed health and community resilience.

12.4.1. SECURE - Strategic Objectives:

- a. Permanently secure land holdings that contribute to the delivery of CLOCA programs and services (including protecting public safety within hazard lands), and that support a regional system of connected natural heritage features that are well integrated within the fabric of our communities.
- b. Ensure Conservation Lands grow in size in equal step with watershed population growth rates to ensure they are of sufficient size to sustain centres of biodiversity and ecosystem health, while also meeting the growing demand for community access to unmanicured natural spaces. This securement rate reflects the added pressure that population increase (and the land use conversion associated with accommodating this increased population) places on watershed health, and more directly on Conservation Land ecosystems through an increase in demand for public use and associated infrastructure.
- c. Dispose of land holdings only when they no longer support the Conservation Area Strategy Guiding Principles and Strategic objectives, or if they are better placed under the ownership of partner municipalities or other government entities.

12.4.2. SECURE - Action Plans and Deliverables

Conservation Area Strategy recommended Action Plans and Deliverables related to **SECURE: SECURE AND GROW THE NETWORK** Guiding Principle:

Land Needs Assessment

- Prepare a Land Needs Assessment that will synthesize existing background supporting research related to public greenspace system planning and acquisition and reinforce the justification for growing Conservation Lands in step with watershed population growth. This assessment will directly inform an update to the CLOCA Land Acquisition Strategy.

Land Acquisition Strategy – Update

- Update the current document so that it reflects the direction established through this Conservation Area Strategy.
- Incorporate a Land Disposition Policy that provides direction for the sale or transfer of Conservation Lands.
- Continue to seek new partnerships and funding sources and enhance existing sources to assist in land acquisition efforts.

12.5. Guiding Principle #3 – CONNECT: NURTURE CONNECTIONS AND ENGAGEMENT

Nurture and inspire community **connections** and **engagement** with nature by using Conservation Lands as the venue where thoughtful access, programs, services, and partnerships unfold.

12.5.1. CONNECT – Strategic Objectives:

- a. Support community access to Conservation Lands to facilitate environmental experiences, foster environmental appreciation and cultivate a culture of environmental protection and advocacy, but only do so in ways that align with “Conserve, Understand, and Enhance” guiding principle and corresponding strategic objectives.
- b. Generate environmental awareness and literacy in our communities through communication, engagement and education programs and services that are delivered within the Conservation Lands. This strategic objective recognizes that the outcomes from this work are significantly enhanced when it is implemented in the natural environments found within Conservation Lands.
- c. Continue to identify opportunities to enhance diversity, equity and inclusion in our Conservation Land programs and services, and protect and enable the rights of Indigenous communities in the area.
- d. Nurture relationships and partnerships with Indigenous Peoples, municipalities, NGOs and other stakeholders.
- e. Deliver and create high-quality and safe experiences for those seeking to connect with nature within the Conservation Lands in ways that align with CLOCA’s duty of care responsibilities as a land manager. Community access related programs/services and associated infrastructure facilitate the mental and physical health benefits that come from being immersed in the high-quality natural areas that are uniquely found within the Conservation Lands, while directly supporting broader community and public health goals at the same time. Sub-objectives related to this “deliver” strategic objective include:
 - i. Ensure appropriate public use and associated infrastructure is planned and provided for in a way that supports and honours the “Conserve, Understand, and Enhance” guiding principle and associated natural and cultural heritage strategic objectives.
 - ii. Support sustainable controlled public access within our Conservation Lands that is guided by the Conservation Land management planning process.
 - iii. Perform comprehensive site planning and utilize best management practices when planning, developing and maintaining appropriate public uses and their associated infrastructure needs.

- IV. Seek out connection opportunities with municipal and other public greenspace and active transportation networks to multiply community co-benefits.
- V. Explore the development of innovative revenue-generating programs, services, and partnerships to fund core Conservation Land management programs and services. These novel uses must continue to focus on promoting the benefits that come from enabling experiences in nature, and support and honour the primary “Conserve, Understand, and Enhance” guiding principle and its corresponding strategic objectives.

12.5.2. CONNECT - Action Plans and Deliverables

Conservation Area Strategy recommended Action Plans and Deliverables related to **CONNECT:**

NURTURE CONNECTIONS AND ENGAGEMENT Guiding Principle:

Indigenous Engagement and Relationship Guidelines (Corporate focus)

- Meaningful collaboration starts with familiarity. Engagement and relationship building requires continuous contact and discussion with the goal of building understanding and trust. CLOCA will work towards the development and implementation of Indigenous Engagement and Relationship Guidelines to foster ongoing connections with Indigenous Peoples and culture and the development of connections with members of Indigenous communities and organizations that will allow for communication of our work and opportunities for collaboration. Conservation Lands present significant opportunities as venues for where meaningful collaboration and partnership can unfold.
- CLOCA’s engagement and relationship guidelines will be a living document, updated periodically to reflect current and future input from our First Nation partners, communities and people connected to the watershed.

Diversity, Equity and Inclusion Statement (Corporate focus)

- CLOCA has an important role to play in supporting diversity, equity and inclusion within the broader community, within its organization, and within its Conservation Lands. The diversity, equity and inclusion statement will be corporate focused, but will acknowledge the role that Conservation Lands can play in this work.

Visitor Experience and Management Strategy

- Developing the visitor experience and management strategy will require CLOCA to actively define why it accommodates controlled public use within its Conservation Lands as outlined in this Strategy, define what that access and associated activities should look like and include compared to what exists today, define what CLOCA’s expectations are from the public when they are visiting our Conservation Lands, and define what CLOCA’s expectations are around the experience that visitors should be having when accessing our Conservation Lands. This work will be informed by deliverables identified under other Guiding Principles and will consider future needs related to visitors/recreation/tourism, community engagement, education, marketing and communication work as they relate to CLOCA Conservation Lands.

12.6. Guiding Principle #4 – LEAD: BE A LOCAL LEADER

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.

12.6.1. LEAD – Strategic Objectives:

- a. Strive for excellence in the business/management and administration of our Conservation Lands and within the programs and services that are dependent on these lands by adopting a philosophy of continuous improvement (i.e., regularly evaluating policies and business processes and incorporating new approaches where appropriate). This continuous improvement should establish a local standard for how public greenspace can be managed and serve as a model for other public greenspace managers.
- b. Define data needs/gaps, manage data, and prioritize investments in Conservation Lands that are driven by data, science, asset management plans and best management practices.
- c. Embrace a leadership role amongst local partners in the planning, implementation and enhancement of a connected regional greenspace system.
- d. Foster relationships and collaboration with partners that accelerate and multiply outcomes for greenspace conservation, watershed health, public health, and community resilience.
- e. Secure long-term and ongoing investments in Conservation Land management programs and services that match the growing size of the conservation landholdings and that reflect the significant economic value of Conservation Lands as critical community infrastructure/assets.
- f. Seek out connection opportunities with municipal (and other publicly owned) greenspace and find synergies with partner programs and services to realize and multiply community co-benefits.
- g. Support regional and local trail network integration as connecting links between Conservation Lands, regional green space systems and communities.

12.6.2. LEAD – Action Plans and Deliverables:

Conservation Area Strategy recommended Action Plans and Deliverables related to **LEAD: BE A LOCAL LEADER** Guiding Principle.

Conservation Lands Program Administration

- Review current internal Conservation Land related administration workflows (including how we handle/collect data related to our Conservation Lands) and the delivery methods of Conservation Land related programs and services.

Conservation Area Inspection Policy (updated in 2023)

- Compare the recently updated Conservation Area Inspection Policy against this Strategy for alignment and determine if additional updates are needed accordingly.

Conservation Area Strategy and Operational Business / Implementation Plan

- Development of the operational/business plan will help guide implementation of the Conservation Area Strategy—the Conservation Lands Working Group will coordinate the Strategy work across business units, including the development of a work plan and a financial plan to deliver on the strategic objectives and the action plans/deliverables outlined in the Strategy. Prioritizing existing and new financial needs will be aligned with the Guiding Principles outlined in the Strategy—i.e.:
 1. CONSERVE: CONSERVE, UNDERSTAND, AND ENHANCE
 2. SECURE: SECURE AND GROW THE NETWORK
 3. CONNECT: NURTURE CONNECTIONS AND ENGAGEMENT
 4. LEAD: BE A LOCAL LEADER

Municipal Greenspace Needs Assessment (update 2019 work)

- As necessary, update the Municipal Greenspace Needs Assessment work completed in 2019 as part of the advance work that went into supporting the development of this Strategy. This assessment explored municipal greenspace needs and identified synergies and partnership opportunities between municipalities and CLOCA in relation to regional greenspace provision, active transportation planning, and recreation.

Explore the establishment of a Local Greenspace Management Community of Practice

- Explore interest in the establishment of a local working group with municipal, Conservation Authority, other land management agencies/organization staff working within the region, with a focus sharing knowledge and working more collaboratively on the management, development, and acquisition of publicly owned natural areas within a regional Greenspace System.

Partnership Framework (Corporate Focus)

- Develop a corporately focused partnership framework that facilitates engagement with local and regional champions willing to support CLOCA programs and services, and identify specific linkages between these champions and CLOCA Conservation Lands.

13 Conservation Land Programs and Services – Assessment and Recommendations for Future Improvements

Central Lake Ontario Conservation Authority strives to provide effective programs and services related to its Conservation Lands that incorporate current science, Traditional Knowledge, best management practices/guidelines and take advantage of new technologies. But it is worth reflecting on the effectiveness of these programs periodically to ensure that they are being provided to the best of the Conservation Authority's abilities. Appendix B outlines the compliance, effectiveness, and potential to improve CLOCA's mandatory programs and services related to its Conservation Lands.

14 Performance Monitoring

Performance monitoring helps to gauge how well something is being accomplished. As CLOCA moves forward with the delivery of the Conservation Area Strategy, CLOCA will track its progress by developing a performance monitoring and reporting system that will be more specifically defined through the future planning work recommended in this strategy. The CLOCA Conservation Land Working Group will be responsible for developing key performance indicators that are appropriate to the planning work and associated implementation activities. Key performance indicators will be used to demonstrate our progress towards aligning with the key guiding principles and completing strategic objectives outlined in this Strategy, and to report on our collective impact. This information will also enable evidence-based and informed decision making to adaptively achieve the vision for CLOCA Conservation Lands.

15 Reviewing and Updating the Conservation Area Strategy

Central Lake Ontario Conservation Authority is committed to reviewing and updating this Strategy every 10 years to ensure that the mandatory programs and services that it is providing in relation to its Conservation Lands remain compliant with the regulation, are effective, and align with CLOCA's mission and strategic priorities.

16 Public Consultation and Publication

The primary components of the Strategy were posted on CLOCA’s website in the fall of 2024 to provide interested parties the opportunity to share comment and concerns on how CLOCA’s Conservation Land programs and services are carried out. Central Lake Ontario Conservation Authority also discussed the Strategy with the Mississaugas of Scugog Island First Nation, signatories of the Williams Treaty, and incorporated their comments into this final Strategy following their review of the full draft in the fall of 2024. The guiding principles and strategic objectives presented in this Strategy are consistent with CLOCA’s updated Strategic Plan and Watershed Plans, which were all open to public consultation when they were developed, and which were approved by CLOCA’s Board of Directors. The direction outlined in this Strategy also acknowledges the valuable input and information generated through extensive consultation and engagement work that was completed between 2018–2022 in preparation for this Strategy (under the working title of *Conservation Land Master Plan* at the time) and more recently in 2024—see section 11 for more details on this engagement and consultation work.

Appendix A – Summary of existing technical studies that guide/inform/support delivery of CLOCA’s Conservation and Management of Lands programs and services.

CA Program	Description/sub-components	Technical Document
Risks related to Natural Hazards in and nearby Conservation Lands		
Hazard lands	Dynamic Beach - Lake Ontario Shoreline	Lake Ontario Shoreline Management Plan (Zuzek, 2020) Lake Ontario Shoreline Hazard Summary, Risk Assessment and Management Plan (SJL Engineering, 2022)
	Erosion - Lake Ontario Shoreline	CLOCA Engineering Department Annual Report 2022 Lake Ontario Shoreline Management Plan (Zuzek, 2020) Lake Ontario Shoreline Hazard Summary, Risk Assessment and Management Plan (SJL Engineering, 2022) Technical Guide for Great Lakes – St. Lawrence River Shorelines Part 4 – Erosion Hazard
	Erosion - Riverine	Lynde Creek Master Drainage Plan Update (AECOM, 2022) Soper Creek Main and East Branches Subwatershed Study (Aquafor Beech, 2022) Master Drainage Study, Westside Creek (Sernas, 1998) Bowmanville and Soper Creek Regulatory Floodplain Mapping (Aquafor Beech, 2009) Lynde Creek Regulatory Floodplain Mapping (Earth Tech, 2008) Oshawa Creek Hydrologic and Hydraulic Modeling (CLOCA, 2014)
	Flooding - Lake Ontario Shoreline	Lake Ontario Shoreline Management Plan (Zuzek, 2020) Lake Ontario Shoreline Hazard Summary, Risk Assessment and Management Plan (SJL Engineering, 2022) Lynde Creek Master Drainage Plan Update (AECOM, 2022) Soper Creek Main and East Branches Subwatershed Study (Aquafor Beech, 2022) Master Drainage Study, Westside Creek (Sernas, 1998)
	Flooding - Riverine	Two-Zone Floodplain Mapping and Flood Mitigation Study (Greck, 2021)

		<p>Soper Creek Main and East Branches Subwatershed Study (Aquafor Beech, 2022)</p> <p>Master Drainage Study, Westside Creek (Sernas, 1998)</p> <p>CLOCA Watershed Flood-Risk Assessment (April, 2017)</p> <p>River and Stream Systems: Erosion Hazard Limit (Technical Guide) (OMNRF, 2002)</p> <p>River and Stream Systems: Flooding Hazard Limit (Technical Guide) (OMNRF, 2002)</p> <p>Understanding Natural Hazards (OMNRF, 2001)</p>
Flood forecasting and warning		<p>CLOCA Engineering Department Annual Report 2022</p> <p>Flood Contingency Plan for the Regional Municipality of Durham (CLOCA et al, 2017)</p>
Drought/low water response		CLOCA Engineering Department Annual Report 2022
Infrastructure		<i>Environmental Assessment Act</i>
Conservation and Management of Conservation Lands		
Administration and Enforcement of Act		<i>Conservation Authorities Act</i> , Section 21 and 29
		Ontario Regulation 688/21
		Conservation Area Strategy (2024) Conservation Areas
		Inspection Policy (2023)
		Ontario Regulation 319/08
		<i>Trespass to Property Act</i>
		<i>Occupiers' Liability Act</i>
Conservation Area Management Planning		Web of Life: A Plan For Two Dynamic Coastal Wetlands – Lynde Shores Conservation Area Management Plan (1999)
		Long Sault Conservation Area Management Plan (2004)
		Bowmanville / Westside Marshes Conservation Area Management Plan (2006)
		Heber Down Conservation Area Management Plan (2010)
Land Securement Planning		Land Acquisition Strategy (2015)
		Lake Iroquois Beach Securement Strategy (2015)

Clean Water Act and its relationship to Conservation Lands	
Source Water Protection	<p>Approved Source Protection Plan: CTC Source Protection Region (2015, amended 2022)</p> <p>Explanatory Document: CTC Source Protection Region (2015)</p> <p>Background technical documents found here: https://ctcswp.ca/technical-docs/#1496857834805-20d71ec6-ee93</p>
Other programs as defined by regulation 686/21 that are related to Conservation Lands	
Groundwater monitoring program	CLOCA Engineering Department Annual Report (2022)
Provincial stream monitoring program	CLOCA Engineering Department Annual Report (2022)
Watershed-based resource management strategy	CLOCA Watershed-Based Resource Management Strategy (2024)
Municipal and other programs and services related to Conservation Lands	
Watershed management and climate change adaptation	<p>Black/Harmony/Farewell Creek Watershed Plans – Existing Conditions Report (2011); Watershed Plan (2012); Update (2020)</p> <p>Bowmanville/Soper Creek Watershed Plans – Existing Conditions Report (2011); Watershed Plan (2013); Update (2020)</p> <p>Ecological Services: Valuing Natural Areas within CLOCA (2017)</p> <p>Flood Damage Centres Upgrading (2017)</p> <p>High Volume Recharge Area Study (2014)</p> <p>Imperviousness Report Card (2018)</p> <p>In-stream Barriers Action Plan (2017)</p> <p>Integrated Watershed Monitoring Program StoryMap</p> <p>Invasive Species Management Strategy and Update (2017)</p> <p>Lake Iroquois Beach Securement Strategy (2015)</p> <p>Land Acquisition Strategy (2015)</p> <p>Lichen Pilot Project (2013)</p> <p>Lynde Creek Watershed Plans – Existing Conditions Report (2008); Watershed Plan (2012); Update (2020)</p> <p>McLaughlin Bay Restoration Strategy (2013)</p> <p>Oshawa Creek Watershed Plans – Existing Conditions Report (2002); Watershed Plan (2002, 2012); Update (2020)</p>

	<p>Restoration Prioritization Supporting Document and Methodology (2019)</p> <p>Riparian Corridors Restoration Plan (2017)</p> <p>Wildlife Corridor Protection and Enhancement Plan (2023)</p>
<p>Integrated watershed monitoring</p>	<p>Aquatic Monitoring Program (2009)</p> <p>CLOCA Turtle Monitoring Methodology (2017)</p> <p>CVC Forest IBI (2013)</p> <p>Durham Region Coastal Wetland Methodology Handbook (2007)</p> <p>IWMP Technical Report (2023?)</p> <p>Forest Bird Monitoring Program survey protocol – Birds Canada</p> <p>Golden Horseshoe Fish Index (2023)</p> <p>Marsh Monitoring Program survey protocols (birds and amphibians) – Birds Canada</p> <p>Ontario Stream Assessment Protocol (2017)</p> <p>Ontario Benthic Biomonitoring Protocol (2022)</p> <p>Terrestrial Monitoring Methodology Overview (2019)</p> <p>Terrestrial Monitoring Plant Collection/Photography Protocol (2020)</p> <p>Terrestrial Monitoring Step by Step Monitoring Instructions (2019)</p> <p>Terrestrial Watershed Monitoring (Long Term) (2009)</p>
<p>Outreach and Education</p>	<p>Community Needs and Opportunities for Environmental Education (2018)</p> <p>In Our Watershed; Outdoor Environmental Education Program Guide (CLOCA, 2023)</p>

Appendix B – Conservation Land Related Programs and Services Risk Assessment and Cost Analysis.

Program/Service	Item	Subservice	Explanation of Subservice	Category: 1-Mandatory, 2-Municipal P&S, 3-Other	Issue/Risk that could limit the effectiveness of the service	Actions to address the risks	Cost estimate
Natural Hazard Management (Section 21.1 (1) 1 i) (Subsection 1-8)	4	Flood Forecasting and Warning	Daily data collection and monitoring of weather forecasts, provincial & local water level forecasts and watershed conditions. Flood event forecasting. Flood warning and communications. Maintenance of equipment.	1	Insufficient information to make informed forecasts; inadequate monitoring equipment; ineffective modelling to predict changing climate conditions	Continue to invest in natural hazard monitoring; continue to work with partners to understand how future climate conditions impact natural hazards	See 2023 CLOCA budget
	7	Natural Hazards Technical Studies and Information Management	Data collection and study of designs to mitigate natural hazards. Development and use of systems to collect and store data and to provide spatial geographical representations of data. Includes Shoreline hazard studies	1	Inadequate funding to complete needed studies	Identify 10-year funding needs to complete needed studies (asset management planning)	See #5 above
	8	Natural Hazards Communications, Outreach and Education	Promoting public awareness of natural hazards including flooding, drought, and erosion. Public events, materials. Social media services. Media relations.	1	Ensuring public receives messages	Continue to explore alternative means of communication and messaging	In-kind
	9	Watershed Stewardship and Restoration related to natural hazards	Apply for and manage external funding, promote private land stewardship, outreach, provide advice and design assistance to property owners as it relates to mitigation of flooding through wetland restoration and environmental restoration mitigating climate change impacts.	1	Lack of public awareness and stewardship/restoration opportunities	Promote public awareness through social media	In-kind
	10	Climate change impact assessment / Planning and Policies related to natural hazard mgmt.	Identification of vulnerability or risk, and the development of mitigation and adaptation policies and plans implementing the Region Climate Change Plan.	2	Lack of public awareness and stewardship/restoration opportunities	Promote public awareness through social media	In-kind
Conservation Authority Land and Conservation Areas (Section 21.1 (1) 1 ii) (Subsection 9-11)	11	Section 29 Minister's regulation <i>Rules for Conduct in Conservation Areas</i> (O. Reg. 688/21)	Conservation areas enforcement/ compliance and Legal expenses for regulation and compliance.	1	Insufficient funds for adequate staff resources to actively prioritize this work on a regular basis; increasing number of visitors having potential to result in negative experience	Consider increased enforcement and education resources in step with increased users	TBD
	12	Conservation Area Strategy - NOTE: Strategy to be completed on or before December 31, 2024 per requirements in Section 10 of the Mandatory Programs and Services Regulation	Guiding principles, objectives, including for an authority's land acquisition and disposition strategy, land use categories on conservation authority owned land, recommended management principles for different land categories, etc.	1	Insufficient staff resources to dedicate adequate time to this new regulatory requirement; insufficient funds to complete the action items/recommendations included in the Conservation Area Strategy	Re-work staff work plans to prioritize delivery of this product within the regulated timelines	In-kind
	13	Land Inventory - NOTE: Inventory to be completed on or before December 31, 2024 per requirements in Section 11 of the Mandatory Programs and Services Regulation	Development of an inventory containing information for every parcel of land owned or controlled by the Authority.	1			
	14	Management, operation and Maintenance of CA owned lands	Management and Maintenance of CA owned lands including: Stewardship and restoration, and, Ecological monitoring programs and services to maintain any facilities, trails or other amenities that support public access and recreational activities in conservation areas	1	Adequate funding for ecological stewardship and restoration; adequate funding for ecological monitoring programs and services; adequate funding for trail maintenance and aging infrastructure	Seek funding opportunities and process efficiencies	In-kind
	15	Land acquisition	Acquisition of lands containing important natural heritage features that aligns with CLOCA Land Securement Strategy.	3	Adequate funding	Establish land acquisition reserve and seek greater support from all levels of government as well as private support	TBD
	16	Rental property expenses	Management of current property rentals. Revenue from these rentals offset the costs associated with management and are reflected in line item 14.	3			
Water Quality & Quantity Monitoring (Section 21.1 (1) 2 (Subsection 12(2) and 12(3)))	18	Provincial Water Quality Monitoring Network (PWQMN)	A long-standing (50+ years) CA/MECP partnership for stream water quality monitoring. CA takes water samples; MECP does lab analysis and data management.	1	Potential lack of sustainable funding	Monitor ongoing Integrated Watershed Monitoring Program needs and identify 10-year funding needs to maintain or improve statistical power of the long-term monitoring results (integrated watershed monitoring program planning)	In-kind
	19	Surface water Monitoring	Integrated Watershed Monitoring Program	3	Potential lack of sustainable funding	Monitor ongoing Integrated Watershed Monitoring Program needs and identify 10-year funding needs to maintain or improve statistical power of the long-term monitoring results (integrated watershed monitoring program planning)	In-kind
	20	Provincial Groundwater Monitoring Network (PGMN)	A long-standing (20+ years) CA/MECP partnership for groundwater level and quality monitoring.	1			
	22	ORM Groundwater Program	Groundwater Partnership Program funded through Toronto Region CA Levy from participating municipalities. Program includes work related to general groundwater resource management.	2	Partner agencies don't effectively use website to inform decision making	Continue to promote program and enhance website	In-kind

Program/Service	Item	Subservice	Explanation of Subservice	Category: 1-Mandatory, 2-Municipal P&S, 3-Other	Issue/Risk that could limit the effectiveness of the service	Actions to address the risks	Cost estimate
Core Watershed-based Resource Management Strategy (Section 21.1 (1) 2) (Subsection 12(4)-(9))	23	Strategy Development - NOTE: Strategy to be completed on or before December 31, 2024	Develop of watershed plans that provide guiding principles and objectives that inform the design and delivery of programs and services the CA is required to provide. Includes the develop a process for periodic review including procedures to engage/consult with stakeholders and the public. Strategy development must include a stakeholder and public consultation component.	1	Insufficient staff resources to dedicate adequate time to this new regulatory requirement; future regulatory changes that are more prescriptive and increase the complexity of completing this deliverable in a timely manner.	Re-work staff work plans to prioritize delivery of this product within the regulated timelines.	In-kind staffing costs
	24	Sub-watershed planning not related to natural hazards	Partner developed plan which identifies streams, wetlands, forests, groundwater recharge areas, and other natural areas. It includes an inventory of plants, animals, birds, and other species. Information on stream flows, water quality, groundwater movement and other natural features is also included. The plan contains policies and implementation actions to protect, enhance and improve the health of the area.	2			
	27	Watershed Natural Heritage Stewardship and Restoration not related to natural hazards	Apply for and manage external funding, promote private land stewardship, outreach, provide advice and design assistance to property owners. Implementation of watershed plan stewardship recommendations.	3	Lack of public awareness of stewardship/restoration opportunities	Promote public awareness through social media	In-kind
	28	Climate change impact assessment /Planning and Policies	Identification of natural hazard and natural heritage vulnerability or risk, and the development of mitigation and adaptation plans and actions implementing the Regions Climate Change Plan.	2	Inadequate staff resources or funding to complete needed studies; inadequate guidance for incorporating climate change with natural hazards	Leverage climate change impact assessment work recently completed by Lake Simcoe, Toronto and Region, Credit Valley, and Halton Conservation Authorities to inform planning process applicable to the CLOCA jurisdiction	In-kind staffing costs; consulting costs TBD
	29	Climate change impact assessment / Planning and Policies	Identification of natural heritage vulnerability or risk, and the development of mitigation and adaptation polices and plans as part of watershed health report.	3	Inadequate staff resources or funding to complete needed studies		In-kind staffing costs; consulting costs TBD
	30	Conservation/ Outdoor Education - Curriculum delivery not related to natural hazards	Program development and delivery.	3	Stable funding for ongoing activities	Continue to support increased self-generated revenue	In-kind
	31	Nature interpretative services not related to natural hazards	Event/festival development and execution.	3	Inadequate municipal and corporate sponsorship and funding	Ensure events deliver value for supporters	Cost recovery from user fees for events including Maple Syrup Festival; Regional support for Water Festival (see 2023 budget)
Enabling Program Services: Program costs that are required to run the organization	33	Corporate Services	Administrative, human resources, operating and capital costs including overhead and support costs.	1	Staff turnover, retirements and knowledge transfer	Offer competitive salaries and maintain good records and policies and procedural documents	In-kind and salary compensation adjustments
	34	Financial Services	Accounting and payroll.	1	Adapting to new CA Act budgeting requirements	Regular meetings with Durham Region	In-kind
	35	Corporate Legal Expenses	Costs related to agreements/contracts, administrative by-law updates.	1	Increasing legal expenses and not consistent year to year	establish long term legal expense forecasts and legal reserve fund	TBD
	36	Communications and Marketing	Supporting delivery of products and programs through communication platforms and promotion of revenue generating activities; websites creation and maintenance.	1	Awareness of Corporate Communication needs	Establish formal liaison meetings with internal departments	In-kind
	37	Governance	Supporting CA Board and Office of CAO.	1	Maintaining up to date admin by-law	Implement 5-year review of by-law	In-kind
	38	Asset Management	Asset management planning, facilities and property management.	1	Adequate funding for asset replacement	Maintain up-to-date Asset Management Plan	In-kind
39	Information Technology Management/GIS	Data management, records retention. Development and use of systems to collect and store data and to provide spatial geographical representations of data.	1	Cyber security	Cyber insurance and staff training	In-kind	