



## CONSERVATION AREA STRATEGY

December 2024

# Land Acknowledgement

The Niagara Peninsula watershed is situated within the traditional territory of the Haudenosaunee, Attiwonderonk (Neutral), and the Anishinaabeg, including the Mississaugas of the Credit. Today, the watershed is home to many First Nations peoples, Métis citizens, and Inuit.

The territory is covered by the Upper Canada Treaties (No. 3, 4, and 381) and is within the land protected by the Dish with One Spoon Wampum agreement—a formal treaty that represents a well-known teaching to ensure conservation of shared lands and natural resources. The “dish” is the generosity and bounty of the land that provides the gifts of food, resources, and water from which we are all nourished. However, these gifts are not infinite, and the bowl must be shared and kept clean, taking only what we need and leaving enough for the next person. The lesson also teaches that the “spoon” is round and does not have sharp edges like a fork or a knife, meaning the dish is to be shared peacefully and shared by everyone who uses the bowl. No one gets a bigger or smaller spoon, symbolizing the spirit of cooperation and equity.

This teaching has been kindly shared by Indigenous partners and community members through conversations with NPCA staff. It is an excellent reminder that the gifts of the earth are to be shared and cared for by each of us in a reciprocal relationship with the land. Our health as people is directly and intricately tied to the health of the watershed. This Dish with One Spoon teaching also underscores the importance of NPCA’s commitment to shared stewardship of natural resources and deep appreciation of Indigenous culture, knowledge systems, and history in the watershed.

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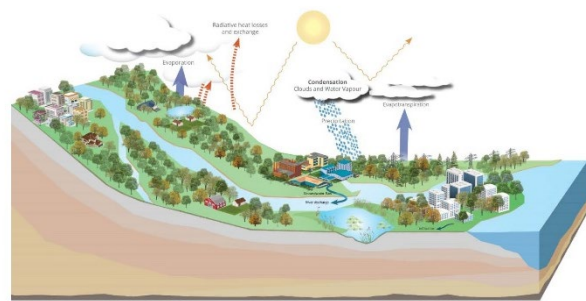
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# 1.0 INTRODUCTION

## 1.1 About Niagara Peninsula Conservation Authority

The [Niagara Peninsula Conservation Authority](#) (NPCA) is a community-based natural resource management agency that protects, enhances, and sustains healthy watersheds that was established in 1959 pursuant to the [Conservation Authorities Act](#). With 65 years of experience, NPCA offers watershed programs and services that focus on flood and hazard management, source water protection, species protection, ecosystem restoration, community stewardship, and land management.

NPCA’s watershed area encompasses 2,424 square kilometres, and includes the Niagara Region, portions of the City of Hamilton (21%), and Haldimand County (25%). Since time immemorial, this area has been the home to Indigenous peoples—a place for sharing, trading, hunting, gathering, stewardship, and friendship. Currently, the watershed population is approximately 520,000 people.



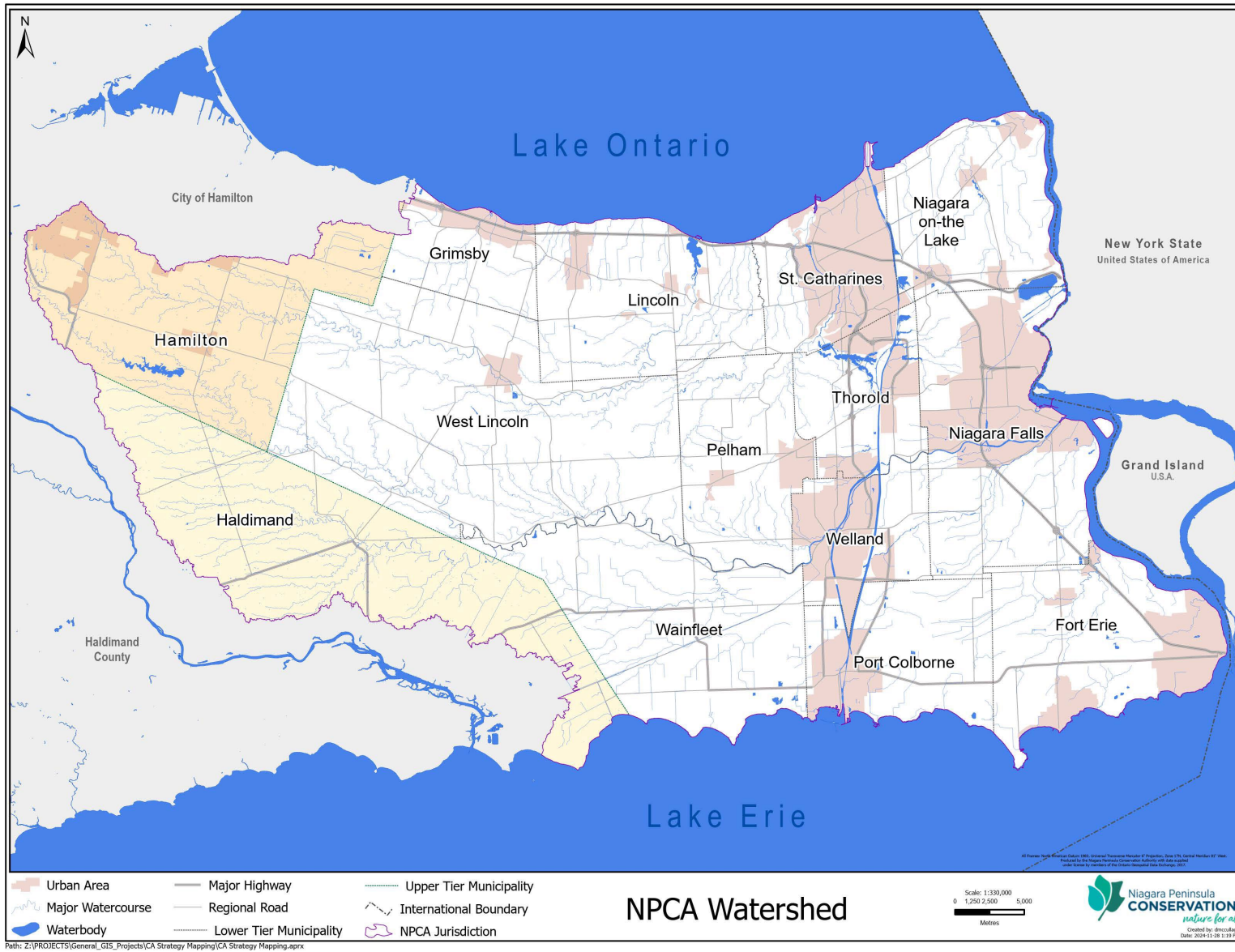
A watershed is the land that drains into a particular watercourse such as a stream, river, or lake. Gravity and the land’s topography (the high and low areas) move water, rain, and snowmelt across the landscape from one area to another.

Situated between two Great Lakes, with the Niagara River as a boundary shared with the United States of America, the Niagara Peninsula watershed is a natural treasure of distinct cultural, geological, hydrological, and biological aspects not found elsewhere in North America. It is part of the Carolinian life zone—Canada’s most biodiverse and threatened ecoregion. The Niagara Peninsula watershed boasts approximately 30 per cent natural cover that provides critical habitat such as forested woodlots, slough forests, alvars, and coastal wetlands that support rich biodiversity, including rare plants and animals. The watershed also includes several other notable natural features such as the Niagara Escarpment Biosphere Reserve, Niagara Falls, the Wainfleet Bog, Ball’s Falls, Willoughby Marsh, and landforms such as the Fonthill Kame ice-contact delta complex.

## 1.2 Conservation Area System

NPCA owns more than 3,000 hectares of land within its watershed, across 41 conservation areas held in public trust for recreation, heritage preservation, conservation, and education. These areas represent a wide range of ecosystem types and protect some of the watershed’s most significant ecological features.

**Map 1: NPCA Watershed Jurisdiction**



NPCA stewards important sections of shoreline along Lake Erie and Lake Ontario, migratory bird habitat, Provincially Significant Wetlands (PSW), Areas of Natural and Scientific Interest (ANSI), important cultural heritage sites, and large sections of the Niagara Escarpment—a UNESCO Biosphere Reserve. Together, these conservation areas represent an essential part of the natural treasures and significant ecosystems within the Carolinian Life Zone. In southern Ontario, and especially in the Niagara Peninsula watershed, growing pressures on the landscape are due to increased urbanization, land use changes, and changing climatic conditions. In addition, there is a well-documented increasing demand for access to green space for the health and well-being of the growing population. NPCA conservation areas play a vital role in supporting and enhancing local communities, agriculture, recreation, health, tourism, and natural heritage, serving as indispensable outdoor recreation areas for more than half a million residents and visitors of the watershed.

In 2023, NPCA saw a 45 per cent increase in visitors at its four most popular conservation areas—Ball’s Falls, Binbrook, Chippawa, and Long Beach—with 160,000 paid day-use visitors, and more than 500,000 visitors to the other 37 conservation areas. Visitation increases align with similar increases seen at other conservation areas in the Greater Golden Horseshoe area. NPCA also attracted 30,000 visitors to its signature events, hosted 32 seasonal campers, and engaged 11,300 students in outdoor education camps and programs. While the increase in paid use supports programs and services as self-generated revenue, they are not without consequences. The effects of increased use on sensitive environments, trails, and other infrastructure include compaction of soil, erosion susceptibility, increased presence of invasive species, destruction of areas outside of trails, non-permitted uses, littering and dumping, and impacts on native species and biodiversity. Careful consideration through conservation area management planning can help ensure that proper programs, maintenance, infrastructure, and signage are in place to reduce or mitigate negative impacts that result from increased use.

### **1.3 Purpose and Regulatory Framework**

NPCA is developing a Conservation Area Strategy (CA Strategy) to outline broad objectives for conservation areas and related programs and services as outlined in the [Conservation Authorities Act](#) (CA Act) and [Ontario Regulation 686/21: Mandatory Programs and Services](#). The CA Strategy will guide the management and operation of NPCA conservation areas. The Regulation requires that the CA Strategy contains the following:

1. Objectives established by the Conservation Authority that will inform the authority’s decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands.

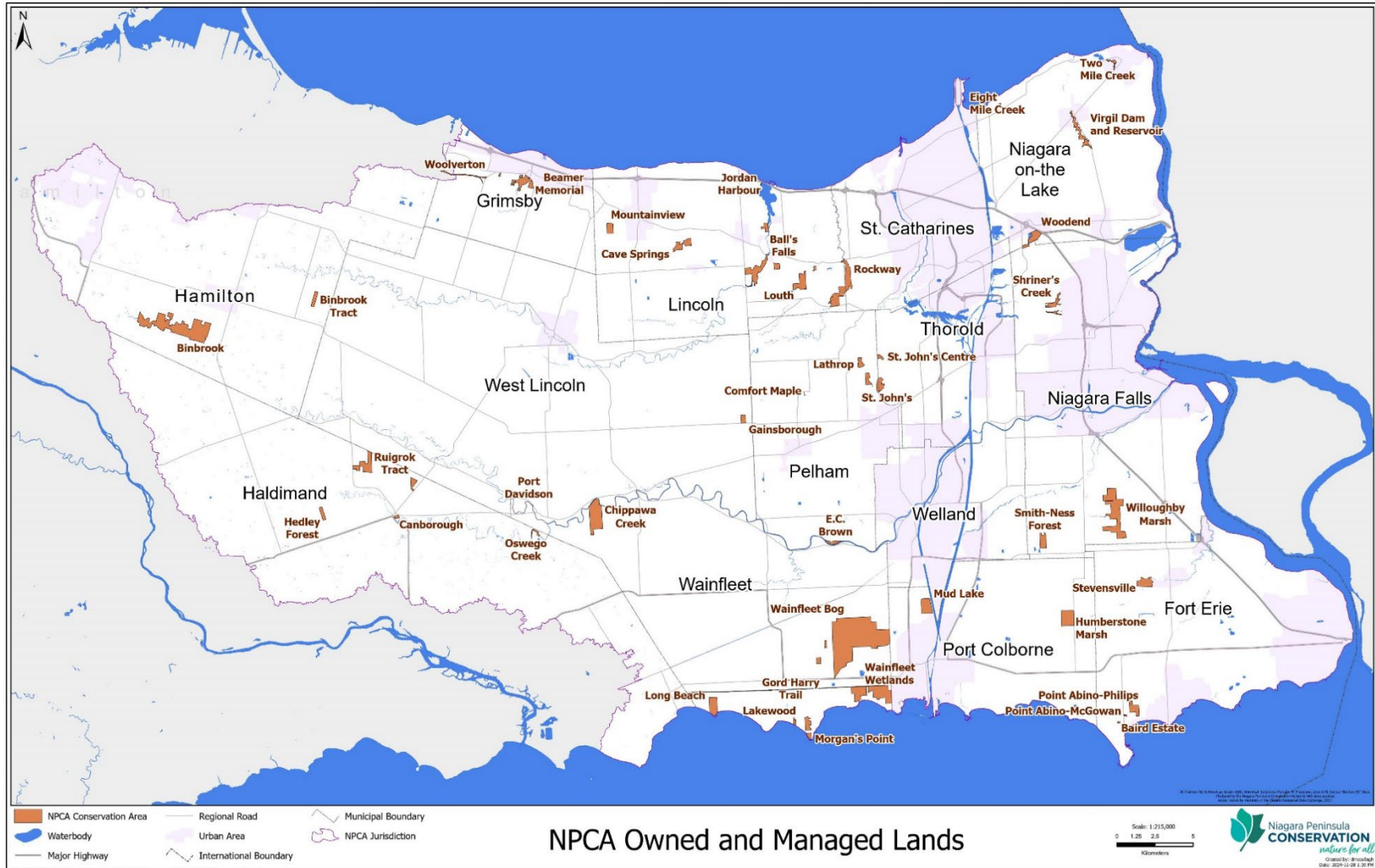
2. Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the Conservation Authority, including the sources of financing for these programs and services.
3. Where the Conservation Authority considers it advisable to achieve the objectives referred to in paragraph 1 above, an assessment of how the lands owned and controlled by the Authority may:
  - a. Augment any natural heritage located within the Conservation Authority's area of jurisdiction; and
  - b. Integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.
4. The establishment of land use categories for the purpose of classifying lands in NPCA's land inventory based on the types of activities on each parcel of land or other matters of significance related to the parcel.
5. A process for the periodic review and updating of the CA Strategy by the Authority, including procedures to ensure stakeholders and the public are consulted during the review and update.

In addition to these provincial requirements, it is important to note that while the CA Strategy is an overarching and guiding document applicable to all conservation areas owned by NPCA, plans and details that are specific to any one conservation area will not be detailed here. Property-specific directions or watershed-level details and priorities will be developed through other strategies, actions, and management plans that represent the importance of specific conservation areas or watershed priorities of NPCA, member municipalities, partners, and interested parties. Examples of items that will not be represented in the CA Strategy include:

- Invasive species management plan
- Permitted uses for individual conservation areas
- Programs and services for individual conservation areas
- Access points, gates, and parking lots
- Restoration plans
- Climate action plan
- Trail management and standards plan
- Wayfinding and signage plan



Map 2: NPCA Conservation Areas



## 2.0 GUIDING PRINCIPLES

The CA Strategy is developed within the context of [NPCA’s Strategic Plan](#) which sets the overall vision, mission, and goals for the authority from 2021-2031. Nested underneath are, or will be, several supporting strategies and plans developed to help achieve the strategic plan and a thriving environment that will sustain life within the watershed for future generations. The CA Strategy builds on NPCA’s overall vision and mission to establish goals, objectives and actions designed to deliver the programs and services that residents and visitors expect from conservation areas.

### 2.1 Strategic Plan

The [2021-2031 Strategic Plan](#) is a guiding document that reaffirms NPCA’s commitment to the mandate of conservation authorities and charts the course for the next generation of conservation work to address the evolving issues of climate change, growth, and the need for green infrastructure. The plan is guided by principles based on a conservation-first and ecosystem philosophy, collaboration ethics, and the importance of innovation rooted in science. NPCA consulted broadly with its Board of Directors, Public Advisory Committee, staff, Indigenous groups, partners, members of the public, and other local stakeholders to develop the strategic plan. Collectively, the six overarching priorities outlined below (Figure 2) guide our actions toward a vision of the Niagara Peninsula watershed with robust nature, thriving agriculture, and resilient urban areas vital to the health and well-being of those who call it home or visit.



Figure 2: Strategic Priorities, NPCA Strategic Plan 2021-2031

## 2.2 Climate Change Action Plan

Climate change is a critical issue affecting individuals and systems around the world; however, the impacts are noticeable on a local scale. Recent climate projections indicate that the Niagara Peninsula is expected to experience significant local impacts due to climate change. For example, increased flooding and erosion due to warmer winters and more intense rainfall events, decreased survivability of temperature-sensitive species (e.g., Brook Trout), and decreased biodiversity and habitat suitability, among others.

Responsibility to act is collective and requires immediate on-the-ground action at all levels (i.e., personal, organizational, government, etc.). NPCA, with its role in watershed-based natural resource management, is a key leader in implementing local climate change adaptation and mitigation initiatives such as water monitoring, flood forecasting and warning, floodplain mapping and flood infrastructure risk management, ecosystem restoration and stewardship, and land securement.

Following NPCA's declaration of a climate change emergency through Resolution No. 174-2019 in 2019, climate change was identified as a critical priority under its strategic plan, and includes numerous actions related to climate change action and environmental sustainability practices across six strategic priorities. NPCA is developing a Climate Change Action Plan (CCAP) that will integrate relevant strategic plan actions and aims to achieve the following three objectives:

- Build climate change resilience within the Niagara Peninsula watershed and NPCA properties.
- Reduce NPCA's carbon footprint to achieve net-zero greenhouse gas (GHG) emissions by 2050.
- Engage with NPCA staff, partners, and stakeholders to accelerate local climate change action.

Through implementation of the CCAP, and the CA Strategy, NPCA will achieve outcomes that build a business case for nature, address future watershed challenges faced by growth and extreme climate impacts, as well as guide efforts to enable climate action within the community.

## 2.3 Land Securement Strategy

Natural heritage and natural green infrastructure such as forests, wetlands, rain gardens, and bioswales provide critical services and benefits that sustain life for people and wildlife—clean air and water, protection from flooding and erosion, and a source of food and habitats for wildlife species. In the Niagara Peninsula watershed, there are growing pressures on the landscape due to increased urbanization, land use changes, and changing climatic conditions that continue to threaten and impact the integrity of these natural features. In addition, there is an increasing demand for access to green space for the health and

well-being of people. NPCA's [Natural Areas Inventory](#) and [Nature for Niagara's Future](#) projects found that the Niagara Peninsula watershed achieves 56 per cent of what science suggests is needed on the landscape for healthy and sustainable watersheds and habitats. Together, these issues have highlighted the critical need to secure more natural areas to improve the environment, mitigate the impacts of climate change, and provide more opportunities for people to enjoy the outdoors.

NPCA has an increasingly significant role in land acquisition for conservation and restoration of natural areas. The CA Act provides guidance on the governance and purpose of conservation authorities, including the powers to “acquire by purchase, lease or otherwise any land that it may require, and, subject to subsection (2), to sell, lease or otherwise dispose of land so acquired” (Sec. 21 (1)(c)). As part of the CA Act Regulation O. Reg 686/21, there are only certain types of mandatory programs and services that can be provided in relation to the conservation and management of lands including (but not limited to) the development of one or more policies governing land acquisitions and land dispositions (Sec. 9 (2)(vi)).

As noted in Section 2.1, NPCA's Strategic Plan aims to achieve its vision of ‘*Nature for all*’ to ensure a healthy and vibrant environment with shared greenspace and clean water that sustains life for future generations. Notably, the plan called for the development and implementation of a land acquisition strategy to achieve Goal 1.4: “*Manage lands to increase biodiversity, habitat connectivity, and natural cover.*” Implementing the land securement strategy will also directly support Goal 3.1 “*Create equitable access to greenspace for the health and well-being of people*” as well as several other strategic goals and performance measures related to natural hazard protection, ecosystem improvements, and building relationships with partners, stakeholders, and Indigenous peoples.

With the changes to the CA Act and a new strategic plan, updates to NPCA's land securement efforts were necessary. NPCA undertook a comprehensive process that resulted in the 2022-2032 Land Securement Strategy (LSS). This document guides land securement in the watershed for environmental, natural hazard protection, and societal (recreation, culture, health) benefits. This includes a clear set of criteria, targets, and objectives that govern decisions related to the securement of lands. In general, objectives include:

- Secure public greenspace in the Niagara Peninsula watershed, using clear and concise decision-making.
- Collaborate with municipal partners, land trusts, stakeholders, and Indigenous communities on mutual land securement goals.
- Implement sustainable and innovative financial models that support land securement and stewardship.

## 2.4 Inventory of Programs and Services

Conservation authorities (CAs) are required by regulation to prepare an Inventory of Programs and Services to identify:

**Category 1:** Mandatory Programs and Services, such as natural hazard management;

**Category 2:** Municipal Programs and Services at the request of a Municipality, such as tree planting services, and technical research to help inform decision-making; and

**Category 3:** Other Programs and Services determined by the Conservation Authority to further the purposes of the *Conservation Authorities Act*, such as restoration and stewardship, and watershed monitoring.

NPCA’s programs and services are funded either through municipal levies, municipal cost apportionments requiring agreements for service, service fees, or external funding such as grants.

**Table 1: Conservation Authorities Act Funding Mechanisms for NPCA’s Programs and Services**

<b>Category 1</b> <b>Mandatory Programs and Services (O.Reg.686/21)</b>	<b>Category 2</b> <b>Municipal Programs and Services</b>	<b>Category 3</b> <b>Other Programs and Services</b>
<ul style="list-style-type: none"> <li>• Programs and services which all CAs must provide in their jurisdiction</li> <li>• Eligible for costs to be apportioned to participating municipalities (levy) without an agreement</li> <li>• Funded through municipal levy, user fees, and/or grants</li> </ul>	<ul style="list-style-type: none"> <li>• Programs and services which a CAs agrees to provide on behalf of municipality</li> <li>• Eligible for costs to be apportioned to participating municipalities if there is an MOU or other agreement</li> <li>• Funded through municipal levy, user fees, and/or grants; MOU/service agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Programs and services which a CA determines are advisable to further the purpose of the Act</li> <li>• Eligible to be apportioned wholly or partially to municipalities through a cost apportioning agreement</li> <li>• Funded through municipal levy, user fees, and/or grants; MOU/service agreement required for use of municipal funding</li> </ul>

NPCA has prepared an Inventory of Programs and Services that lists all the programs and services it provides under each category (i.e., Category 1, 2, and 3). Drawing from the Inventory of Programs and

Services, NPCA must also provide the identification of mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services. Section 4.1 provides a more focused description of program areas and services related to NPCA conservation areas.

### 3.0 GOALS AND OBJECTIVES

With guidance from its [2021-2031 Strategic Plan](#), four goals and a series of supporting objectives were developed to inform decision-making related to the lands NPCA owns and manages. They are also consistent with NPCA's mandate, CCAP, and Land Securement Strategy while informing land planning and management, land acquisition, and other programs and services offered at NPCA conservation areas. Goals are designed to be simple and concise to clearly identify a long-term achievable result. Objectives support each goal with measurable targets that define what we aim to accomplish. An action plan will be developed to inform annual budgets and work plans as resources are allocated to each category of programs and services. These actions will describe the steps or deliverables required to achieve the goals and objectives. These actions may range from very short-term projects that are implemented daily to longer-term, collaborative projects that take months or years to complete and implement (e.g., management plans).

#### 3.1 Goal #1: Protect & Restore

This goal is designed to address common conservation area land management themes such as protecting biodiversity, monitoring, connectivity, restoration, Indigenous knowledge, enforcement, and monitoring.

**Objective 1:** Permanently protect lands and increase ecosystem connectivity through strategic land acquisition, securement, and partnerships.

**Objective 2:** Monitor, assess, and restore conservation areas to improve and enhance natural features and functions.

**Objective 3:** Develop conservation area management plans that align with NPCA strategic priorities.

**Objective 4:** Safeguard conservation areas against current and future risks while protecting people and property from natural hazards.

**Objective 5:** Enforce conservation area rules and regulations against non-permitted uses to protect nature, minimize negative impacts, and increase public safety.

**Objective 6:** Integrate diverse views, Indigenous ways of knowing, and local perspectives into conservation land planning, restoration, and monitoring.

### 3.2 Goal #2: Connect & Experience

Conservation areas provide important, local access to natural spaces that are highly valued by residents and visitors. Connecting these spaces to other public lands and trails and providing safe nature-based experiences in the watershed is critical to the health and well-being of people.

**Objective 1:** Cultivate strong partnerships to expand connections to urban areas, other public lands, and trail systems to improve access to conservation areas.

**Objective 2:** Provide safe, inclusive, and welcoming nature-based experiences while preserving natural and cultural features.

**Objective 3:** Enhance visitor experiences by improving informational and educational signage and wayfinding.

**Objective 4:** Remove barriers at conservation areas for people with disabilities, where feasible, through innovative and environmentally appropriate maintenance and design.

**Objective 5:** Work with the community to improve access to conservation areas for Indigenous people for gathering, ceremony, teaching, and cultural practices.

### 3.3 Goal #3: Adapt & Sustain

Protection, restoration, and connectivity are not achievable without the ability to innovate through green infrastructure, low impact development, climate readiness, and fiscal responsibility.

**Objective 1:** Adapt programs, services, and asset management to address changing climate conditions, build resilience, and improve ecosystem health.

**Objective 2:** Ensure programs, services, and plans include environmental sustainability principles to maintain resources for future generations.

**Objective 3:** Incorporate sustainable water management, green infrastructure, and low impact development options into new infrastructure projects.

**Objective 4:** Achieve fiscal resiliency in conservation area enhancements and management through diversified funding sources, grants, and partnerships.

### 3.4 Goal #4: Inspire & Engage

Education, stewardship, volunteerism, and collaboration are essential human connections to the organization and the environment we are charged with protecting. Programs that foster these connections are critical to inspire present and future generations.

**Objective 1:** Lead experiential nature-based education and recreation programs that inspire conservation champions of all ages.

**Objective 2:** Create conservation-inspired action through stewardship, volunteerism, community science, and collaboration.

**Objective 3:** Explore opportunities to expand cultural connections and heritage programming.

**Objective 4:** Coordinate education and outreach programs and conservation areas programs and services with partners.

**Objective 5:** Incorporate Indigenous knowledge and perspectives into conservation area programming and land management.

**Objective 6:** Expand Indigenous programming, storytelling, placemaking, and recognition at conservation areas.

## 4.0 CONSERVATION AREAS

### 4.1 Service Areas and Programs

NPCA conservation areas encompass a diverse range of ecosystem types and protect some of the most critical ecological features within the Niagara Peninsula watershed. These areas include important shoreline properties along Lake Erie and Lake Ontario (e.g., Morgan's Point, Long Beach, Lakewood), migratory bird habitats (e.g., Point Abino, Jordan Harbour, Beamer), Provincially Significant Wetlands (PSWs) such as Willoughby Marsh, Wainfleet Bog, and Humberstone Marsh, and Areas of Natural and Scientific Interest (ANSIs) like Ruigrok, and Eight Mile Creek. NPCA also manages sites of significant cultural heritage (e.g., Ball's Falls, St. Johns Centre) and large parcels of the Niagara Escarpment (e.g., Rockway, Woodend, Louth, Cave Springs, Mountainview).

Together, these conservation areas capture the unique natural treasures and ecosystems characteristic of the Carolinian life zone found in the Niagara Peninsula. They play a vital role in supporting local communities, agriculture, recreation, health, tourism, and natural heritage. With more than a half million



residents and visitors in the watershed, these areas provide vital opportunities to connect with nature and a wide range of ecosystem services that benefit everyone.

Conservation area programs and services are primarily categorized as mandatory (Category 1 services), with some activities such as education and recreation programs classified under Category 2 or 3 services. These programs are integral to NPCA’s operations and align with its strategic goals. Table 2 shows the program areas related to conservation areas and their respective CA Act categories.

**Table 2: NPCA Conservation area programs and services with CA Act funding category.**

Program or Service	Description	Category
Section 29 Enforcement and Compliance	Conservation areas regulations enforcement and compliance	1
Active recreation programs (conservation areas)	Day use and other services (wedding, event, facility rentals)	3
Education programs	Education programs and camps, heritage programs	2,3
Land Management—other agencies	Land and facilities management, maintenance, and operations for other agencies (federal, provincial, regional, local)	2,3
Land Care Program (conservation areas)	Management and maintenance of NPCA conservation areas—passive recreation, heritage buildings, tree management, hazard, and risk management	1
Land acquisition and disposition	Acquisition to mitigate natural hazard risk	1
	Acquisition cost-shared with municipal partners or agencies	2
	Acquisition in accordance with NPCA land securement strategy	3
Land Management Planning	Conservation Area Land Inventory	1
	Conservation Area Strategy	1
	Conservation Area Management Planning	1

#### 4.1.1 Conservation Area Operations and Programming

NPCA manages 41 conservation areas, with active recreation currently offered at four sites: Ball’s Falls, Binbrook, Chippawa Creek, and Long Beach. Active recreation services vary by location and may include:

- Camping - Both seasonal and transient options.
- Weddings, Facility Rentals, and Special Events - Available at pavilions, picnic areas, and indoor and outdoor spaces.

- Education Programs - Field trips and overnight programs designed to engage students and visitors.
- Heritage Programs - Featuring field trips, special events, and demonstration days that celebrate cultural heritage.
- Nature School - A BSID-designated (Board School Identification Database) part-time school program focusing on outdoor education.
- Day Camps - Outdoor adventure camps tailored to youth.
- Volunteering –Opportunities for people of all ages to support the delivery of heritage, education, events, and day camps.

All conservation areas are maintained by NPCA’s Land Care Program, which focuses on preserving, enhancing, and sustaining the natural beauty, recreational opportunities, and overall usability of these sites. Maintenance activities include:

- Horticulture, forestry, and grass cutting.
- Trail maintenance and hazard removal.
- Inspection and repair of park amenities.
- Signage installation and maintenance of washroom facilities and heritage buildings.

In addition to ongoing maintenance, NPCA enforces regulations under Section 29 of the CA Act to ensure environmental protection and visitor safety. Key areas of focus include:

- Enforcement of open fire rules.
- Regulation of access times.
- Prohibition of non-permitted uses, such as all-terrain vehicle activities.
- Enforcement against littering and improper waste disposal.

#### 4.1.2 Land Acquisition and Disposition

NPCA plays a crucial role in acquiring and securing land to protect and restore natural areas and greenspaces for future generations. Since the late 1950s, NPCA has acquired 41 properties encompassing more than 3,000 hectares. These lands contribute to natural heritage conservation and provide essential services, such as access to greenspace, clean air and water, and protection from natural hazards like flooding and erosion. As noted in Section 2.3, the LSS was developed to set land securement criteria and targets, and though it is uncommon, best practices for any land dispositions that would be recommended. Building from criteria and targets that guide related decisions, NPCA is also developing procedures for land securement and disposition that will be aligned with the recommendation of the LSS, Strategic Priorities,

and the CA Strategy. The LSS sets a target to secure 180 hectares of land by 2031, and NPCA has already achieved 30 per cent of this target.

#### 4.1.3 Land Planning and Management

NPCA's 41 conservation areas are made up of diverse ecosystem and vegetative community types, including forests, PSWs, ANSIs, recreational lands, cultural sites, and areas designated for flood and erosion control. Each property requires a tailored management plan to guide permitted uses, access levels, enhancements, programs, services, and risk management to ensure visitor safety.

Land planning directs the overall design of each conservation area, while land management focuses on the sustainable use and enjoyment of these areas by the public. All NPCA current and future management plans are guided by the CA Strategy, which establishes goals and objectives that align with NPCA's vision, mission, and priorities for the conservation area system that are consistent with the strategic plan. Conservation area management plans will aim to increase access to greenspace where appropriate, connect people to nature, and ensure the long-term sustainability of the watershed.

NPCA's land planning program collaborates with other programs and departments, including planning and development, land care, restoration, enforcement, and capital projects, through coordinated internal working groups and teams, enhancing overall program effectiveness and alignment.

For properties located within the Niagara Escarpment Plan Area, NPCA consults with the Niagara Escarpment Commission. The *Niagara Escarpment Planning and Development Act* (NEPDA) provides for the maintenance and protection of the Niagara Escarpment and ensures all development that occurs is compatible with the environment. The [Niagara Escarpment Plan](#) provides the Niagara Escarpment Parks and Open Space System Planning (NEPOSS) framework, which outlines the process for developing management or master plans as well as guidelines for escarpment properties.

## 5.0 CONSERVATION AREA ASSESSMENT

[O. Reg. 686/21](#) notes that a conservation authority may include, within their Conservation Area Strategy, an assessment of how lands owned and controlled by the authority:

- i. may augment any natural heritage located within the authority's area of jurisdiction; and
- ii. integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.

Section 5.1 below outlines how NPCA conservation areas augment natural heritage within the watershed context while Section 5.2 outlines how the lands are integrated with other provincially, municipally owned lands or other publicly accessible lands and trails within the Niagara Peninsula watershed.

## 5.1 Augmenting Natural Heritage

The Niagara Peninsula watershed is a natural treasure of distinct cultural, geological, hydrological, and biological aspects not found elsewhere in North America. It boasts approximately 30 per cent natural cover that provides critical habitat such as forested woodlots, slough forests, alvars, and coastal wetlands that support rich biodiversity, including rare plants and animals. The watershed is uniquely situated between two Great Lakes, with the Niagara River as a boundary shared with the United States of America. The landscape in the Niagara Peninsula watershed today “is the result of numerous depositional and erosional events and processes spanning over 500 million years, resting on a foundation established much, much earlier” (Niagara Geology, Niagara Geopark). As a result of these processes, the watershed includes several notable natural features including the Niagara Escarpment, Horseshoe Falls and Niagara Glen, Wainfleet Bog, Ball’s Falls, Willoughby Marsh, and other significant landforms such as the Fonthill Delta-Kame complex, large parcels of slough forest, and PSWs. Unique microclimates created by the Niagara Escarpment and rich soils support one of Ontario’s most productive agriculture systems, including vineyards, tender fruit orchards, livestock, and various specialty crops. The geology of this area includes a sequence of shales, sandstones, limestones, and dolostones. These notable features provide life-sustaining benefits for all and many opportunities to discover nature and culture.

Over a decade ago, NPCA worked with several municipal and community partners to undertake the [Natural Areas Inventory project](#), to identify, classify, and map natural areas in the Niagara Peninsula watershed. The goal of the project was to use industry standards and scientifically defensible protocols to inventory the natural areas in the jurisdiction. Following the work of the NAI, the Nature for Niagara’s Future (NFNF) study assessed the natural features identified during the NAI and their contributions towards a healthy and sustainable system. This study found the watershed’s natural cover is approximately 30 per cent, two thirds of which is mature forest, with nearly half of the forests being swamp-type wetland communities. Additionally, the NFNF study found that the Niagara Peninsula watershed currently achieves only 56 per cent of what science suggests is needed on the landscape for healthy and sustainable ecosystem functions, habitats and natural resilience. Planning for natural heritage is necessary for the maintenance and enhancement of biodiversity, protection of species at risk, mitigation of climate change, protection and improvement of water quality, and the fulfillment of public values. A healthy natural environment is important for a thriving economy and rich cultural heritage. NPCA used a consolidated layer of its regulated features, the Niagara Region Natural Environment System, Haldimand Natural Environment Area,

Hamilton Core Natural Areas, and Provincial Natural Heritage System (NHS) and linkages from the [Greenbelt](#) and [Niagara Escarpment Plan](#), to assess how NPCA conservation areas augment or enhance the natural heritage in the Niagara Peninsula watershed.

Map 3 shows NPCA conservation areas and how these lands fit within the natural heritage features and areas in the watershed. All NPCA conservation areas, except for the Comfort Maple, are located within the natural features boundaries and represent significant parcels of land that enhance the ecosystem services, biodiversity, and overall connectivity of a variety of habitat types thus playing a critical role in creating a healthy natural environment landscape in the Niagara Peninsula watershed. Even the few conservation areas that are outside of provincial or municipal natural heritage features include sections of NPCA regulated features (e.g., floodplain, wetland, valleyland, shoreline) and therefore they augment the system simply by virtue of being protected natural hazards and offering opportunities to improve features through restoration and enhancement. Table 3 identifies the natural heritage features or significance of each NPCA conservation area.

#### 5.1.1 Greenbelt and Niagara Escarpment

Within the Niagara Peninsula watershed, 11 conservation areas are found along the Niagara Escarpment, which holds local and international significance as a United Nations Education, Scientific and Cultural Organization (UNESCO) designated Biosphere Reserve. The Niagara Escarpment extends from Queenston, a small hamlet in the Town of Niagara-on-the-Lake, to Tobermory in the Bruce Peninsula and represents the largest continuous forested area in south-central Ontario. All conservation areas and parks within the Niagara Escarpment are connected by the [Niagara Escarpment Parks and Open Space System](#) (NEPOSS), and the Bruce Trail, a natural hiking trail managed and stewarded by the Bruce Trail Conservancy. As required in Part 3 of the [Niagara Escarpment Plan](#) (NEP), each conservation area within the NEPOSS must create a management plan to guide permitted activities and identify “zones” within the conservation area using the NEPOSS classification system, underlying NEP land use designations, and identifying the cultural, natural, and recreational features of the site. NPCA will develop management plans for all conservation areas within the NEPOSS and seek approval and endorsement from the NEC and the Ministry of Natural Resources and Forestry (MNR) to ensure compatibility and collaborative protection of this important natural heritage area.

Map 3: NPCA Conservation Areas and Watershed Natural Features

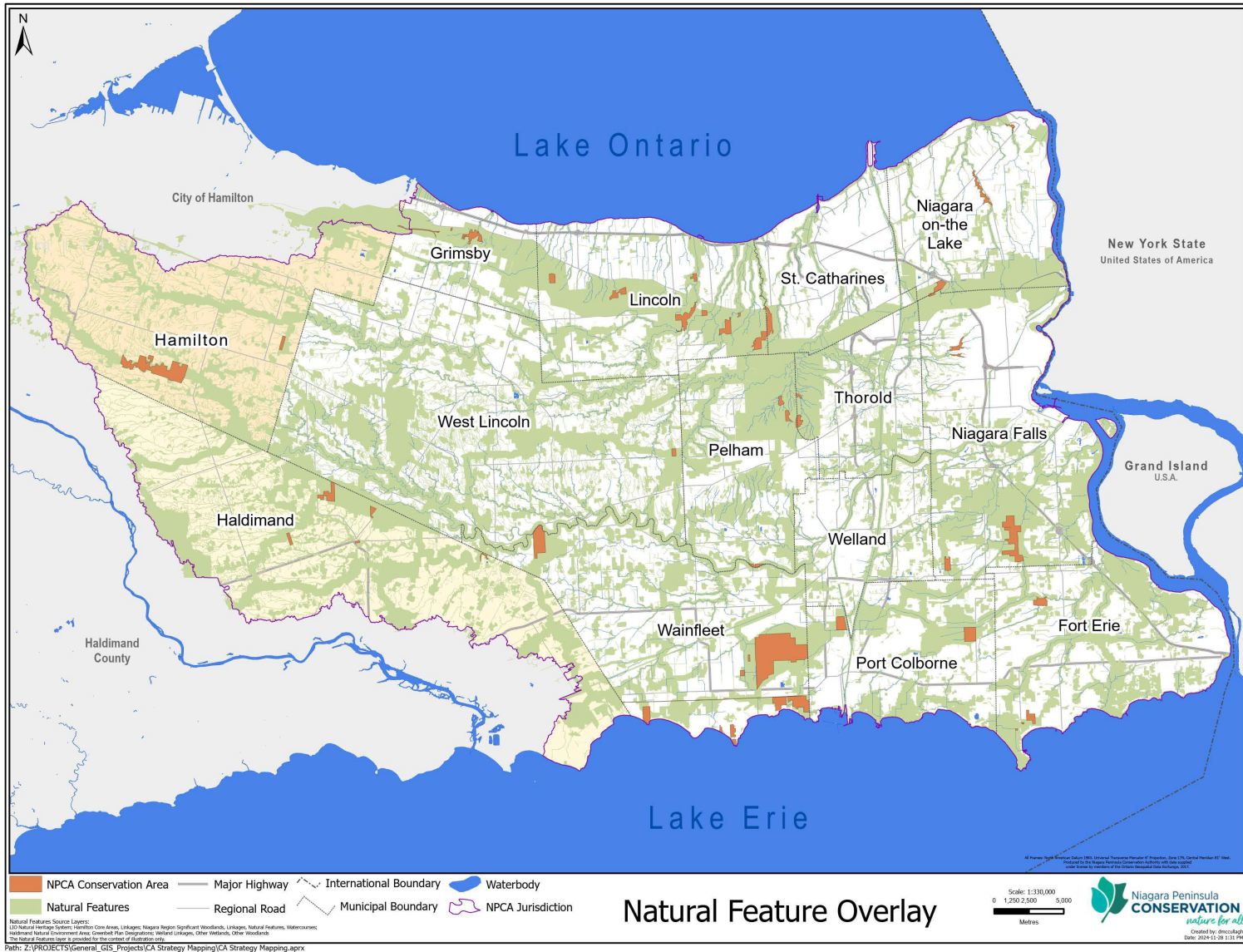


Table 3: NPCA Conservation Area Natural Features and Significance

NPCA Conservation Area	NPCA Reg.	Prov. NHS	Mun. Nat.	GBP P.Count.	Niagara Escarp.	Wetland	Water-course	Shoreline	CCC Sig. Site	T3 P. Area	Geosite	Trails
Baird Estate	*	*	*			*			*			
Ball's Falls	*	*	*	*	*	*	*		*		*	*
Beamer Memorial	*	*	*		*		*		*	*	*	*
Binbrook	*	*	*	*		*	*					*
Binbrook Tract	*	*	*	*								
Canborough	*		*				*		*			
Cave Springs	*	*	*			*				*	*	*
Chippawa Creek	*	*	*			*	*					*
Comfort Maple				*								
E.C. Brown	*	*	*			*	*					*
Eight Mile Creek	*	*	*	*		*	*					
Gainsborough	*	*	*			*						
Gord Harry Memorial Trail	*	*	*			*						*
Hedley Forest	*					*						*
Humberstone Marsh	*	*	*			*				*		
Jordan Harbour	*	*	*			*	*	*	*			
Lakewood	*		*					*				
Lathrop	*	*	*		*	*	*		*	*		
Long Beach	*	*	*			*		*				*
Louth	*	*	*		*		*			*	*	*
Morgan's Point	*		*			*		*		*	*	*
Mountainview	*	*	*		*	*				*	*	*
Mud Lake	*	*	*			*	*			*		*
Oswego Creek	*		*			*	*					
Point Abino-McGowan	*	*	*						*			
Point Abino-Philips	*	*	*			*			*			
Port Davidson	*	*	*				*					
Rockway	*	*	*		*		*				*	*
Ruigrok Tract	*		*			*			*			*
Shriner's Creek	*		*			*	*					
Smith-Ness Forest	*	*	*			*	*					
St. Johns	*	*	*		*	*	*		*		*	*
St. Johns Centre	*	*	*		*	*	*		*			*
Stevensville	*	*	*			*	*					*
Two Mile Creek	*	*	*	*		*	*					*
Virgil Dam and Reservoir	*	*	*	*		*	*					*
Wainfleet Bog	*	*	*			*	*			*	*	*
Wainfleet Wetlands	*	*	*			*				*	*	*
Willoughby Marsh	*	*	*			*	*		*	*		
Woodend	*	*	*	*	*		*				*	*
Woolverton	*	*	*		*					*		*

The 11 conservation areas in NEPOSS (Map 4) augment and enhance the network of protected areas along the Niagara Escarpment owned by other conservation authorities, municipalities, Bruce Trail Conservancy, Escarpment Biosphere Conservancy, land trusts, and private landowners. This connected fabric of protected lands helps to mitigate and improve resilience to climate change, support green infrastructure, capture and store carbon, recharge aquifers, and protect biodiversity and sensitive areas to achieve the shared goal of beautiful, sustainable, and healthy landscapes in Ontario. All NPCA conservation areas within the NEPOSS not only offer endless environmental benefits, but they also support the culture, recreation, tourism, climate change, natural resources, and environmental protection goals of the Greenbelt Plan, NEPOSS council, and the Niagara Escarpment Biosphere Network.

#### 5.1.1.1 Niagara (Aspiring UNESCO Global) Geopark

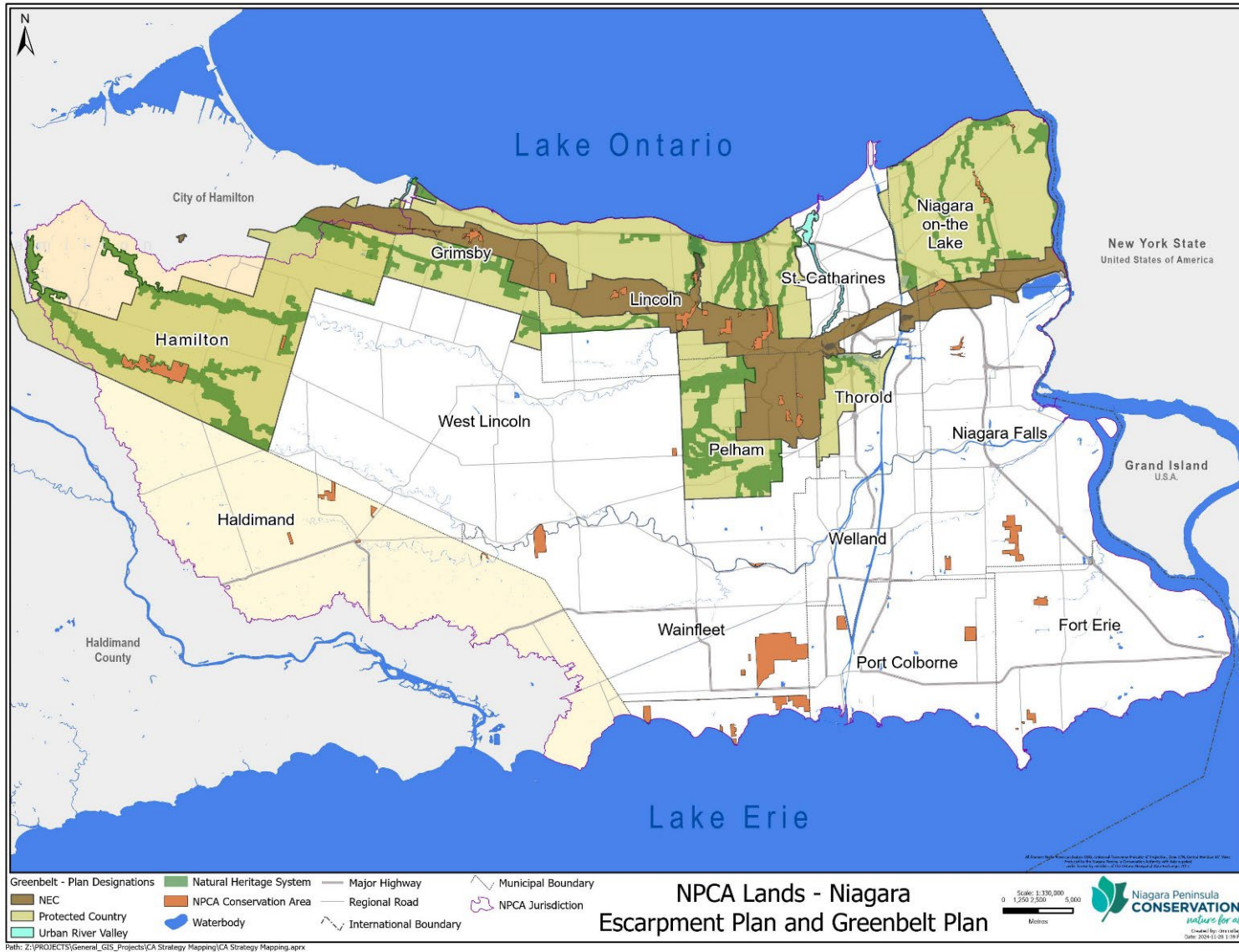
Cultural and heritage connections are strengthened through collaboration and partnerships with multiple organizations and levels of government. NPCA is a partner of the [Niagara Geopark](#), and a member of their Board of Directors. The Niagara Geopark is an organization that aims to achieve the UNESCO Global Geopark designation for the entire Niagara Region using a sustainable tourism-oriented model and building on its 500-million-year rich geological history. Most recently, Plenty Canada, an Indigenous non-government organization devoted to the protection of Mother Earth, partnered with the Niagara Escarpment Biosphere Network ([NEBN](#)) and the Niagara Geopark to support the integration of Indigenous linguistic, artistic, cultural, and historical elements within the Niagara Geopark Trail Network and Plenty Canada's Great Niagara Escarpment Indigenous Cultural Map—further demonstrating that NPCA conservation areas support culture, recreation, Indigenous leadership, and tourism in addition to environmental protection. The Niagara Geopark Geosite Map highlights at least 11 NPCA conservation areas that contribute to this designation due to their significance as both cultural and natural heritage locations.

#### 5.1.2 Wetlands

Wetland ecosystems are a very important part of the natural landscape and historically dominated a significant percentage of the Niagara Peninsula watershed, particularly in the southern portion. This once dominant ecosystem type is evident when studying local geology, hydrogeology, soils, and aerial photography where remnants of these wetlands can still be seen in present-day agricultural fields as darker sinuous lines representing the former sloughs. The State of Ontario's Biodiversity report (2024) highlights that less than 30 per cent of the original wetlands remain in Southern Ontario. NPCA's 2023 Watershed Report Card identified that only approximately 14 per cent of the land base in the Niagara Peninsula watershed is wetland cover. The creation of a series of Wetland Shipping Canals beginning in the mid-19<sup>th</sup> century significantly altered the drainage patterns of the landscape, lowering the water table in some areas and draining some of these wetland ecosystems in the process. Other wetlands were drained to support development and the creation of a fabric of agricultural lands in this area.



Map 4: NPCA Conservation Areas in the Provincial Natural Heritage System



A large portion of the forest cover in the Niagara Peninsula watershed is mature swamp forest, sometimes called slough forest which is a swamp, or tree-dominated wetland, with rolling topography that features linear shallow channels and narrow upland ridges between them. Sloughs are easily seen in air photos as darker features between more upland sections of the swamp. The channels, or sloughs, will have water seasonally (ephemeral) and will be dry during the summer months, thus this area contains both upland and wetland species. Slough forests are unique and diverse landscapes that are part of a healthy ecosystem, typically home to high biodiversity and unique species. They are especially important for food, shelter, and habitat for various wildlife and the general hydrological function of the surrounding ecosystem. The sloughs can hold and slowly release water during rain events, an important feature of wetlands, especially in urban areas which typically have a large amount of hard or impervious surfaces where water cannot seep into the ground. Even small isolated seasonal pools which contain standing water for only a short period in the spring and summer can provide vital habitat for rare and specialized species such as frogs, toads and salamanders which rely on fish-free sources of water to survive and are not typically found in other wetland types. NPCA conservation areas that are dominated by swamp slough forests include Willoughby Marsh, Humberstone Marsh, Point Abino, and Smith Ness Forest.

The Niagara Peninsula watershed includes a lesser-known escarpment feature, the Onondaga Escarpment, one of the most noticeable geologic features in the southern portion of the watershed that forms a discontinuous ridge a few metres in height from Fort Erie to beyond Dunnville. In the area immediately north of the Onondaga Escarpment, the remnants of glacial retreat became an extensive bog ecosystem now known as the Wainfleet Bog and Humberstone Marsh, large sections of which are owned by NPCA, the Nature Conservancy of Canada and the Province of Ontario, in addition to many sections that are still privately owned. The Wainfleet Bog Conservation Area is federally, provincially, regionally, and locally significant as the largest remaining bog in southern Ontario, and the only bog in the watershed. It has been identified as a Key Biodiversity Area (KBA) by Birds Canada, recognizing it as one of the most important remaining places for biodiversity. The Wainfleet Bog is one of the six Landowner Outreach Areas (LOA) established in the Land Securement Strategy for more concentrated effort in the next 10 years to expand the conservation area and protect additional lands in that community.

Of the 41 NPCA conservation areas, 29 represent one of the three different wetland types found in the Niagara Peninsula watershed—swamp, marsh, bog—making these areas significantly important to the natural heritage, the flood storage capacity, groundwater recharge and watercourse baseflows in the watershed. While a few have small pockets or pieces that are wetland, many have significant sections of the conservation area in swamp, marsh, or bog.

### 5.1.3 Watercourses

There are several significant water courses in the Niagara Peninsula watershed, including the bi-national Niagara River, the Welland River, and Twelve Mile Creek—the only cold-water stream in the watershed.

Niagara Parks owns and maintains more than 1,300 hectares of parkland along the entire length of the Niagara River from Fort Erie to Niagara-on-the-Lake, including lands along the Horseshoe Falls and the Niagara Gorge, therefore NPCA does not own any lands on this important stretch of land. NPCA owns parcels along the Welland River, Black Creek, Twenty Mile Creek, Four Mile Creek, Twelve Mile Creek, and many other watercourses which help to conserve the floodplain functions, reduce erosion, improve water quality, mitigate flooding, protect headwaters, and contribute to habitat for local species. Twelve Mile Creek is the only cold-water stream in the Niagara Peninsula watershed and the only one capable of supporting a population of native Brook Trout.

#### 5.1.4 Great Lakes Shoreline

The Niagara Peninsula watershed is uniquely situated between two Great Lakes (i.e., Lakes Erie and Ontario) with the Niagara River as a boundary with the United States of America. As the interface between the land and water, the Great Lakes' shoreline and nearshore areas are critical in supporting several ecosystem functions such as providing habitat for fish and wildlife, a source of drinking water, recreational opportunities, and protection from erosion and flooding. Despite these important benefits, some areas of shoreline have been altered or hardened over time. For example, it is estimated that approximately 75 per cent of the historic coastal wetlands along Niagara River (Canadian) shoreline have been lost due to past land use practices.

Several NPCA conservation areas have Great Lakes shorelines in their boundaries and further protect and enhance the remaining natural shoreline ecosystems. NPCA owns four conservation areas along the north shore of Lake Erie, and one along the south shore of Lake Ontario. Conservation areas along the Great Lakes include important ecosystem types that are regionally and provincially rare, including sand dunes, beach/bar, alvar, and tallgrass prairie, each of these home to significant flora and fauna species. In fact, most of the Lake Ontario shoreline in the Niagara Peninsula watershed has been identified as a Key Biodiversity Area (KBA) by Birds Canada, further establishing the importance of conservation efforts to local biodiversity and vulnerable species.

#### 5.1.5 Carolinian Life Zone

The far south portion of Ontario is known as the Carolinian life zone, stretching from Toronto to Windsor and widely believed to be one of the most biodiverse and threatened ecosystems in Canada. The entire Niagara Peninsula watershed is within this zone. According to Carolinian Canada Coalition, this zone is home to one-quarter of Canadians, yet it represents only 0.25 per cent of the landmass.

Due to the increasing growth pressures in the zone, it also has more rare and endangered wildlife than any other life zone in Canada. Starting in 1984 and culminating in 2005 with the Carolinian Canada Signature Sites guide, Carolinian Canada collaborated with leading ecologists in Ontario as well as local

organizations, landowners, and community groups to identify the most critical unprotected natural areas in the Carolinian life zone. Today, many of the 38 Signature Sites identified are protected or partially protected. NPCA owns 12 conservation areas that help protect all six Carolinian Canada Signature Sites found within the Niagara Peninsula watershed, including the Point Abino Peninsula Sandland Forest, Fonthill Sandhill Valley, Willoughby Clay Plain, and Caistor Canborough Slough Forest.

#### 5.1.6 Federal 30x30 Target

In 2022, the federal government set the goal of conserving 30 per cent of Canada’s land and water by 2030 to tackle biodiversity loss and climate change, alongside more than 190 countries at the United Nations Conference of the Parties (COP15) to the Convention on Biological Diversity becoming a target of the Kunming-Montreal Global Biodiversity Framework and marking the biggest international conservation commitment to date. The Federal Department of Environment and Climate Change Canada has been tracking progress to meet this target, and in July 2024 they released Canada’s 2030 Nature Strategy to “establish a shared vision and roadmap for halting and reversing biodiversity loss in Canada” to meet the goals and targets established by the Kunming-Montreal Global Biodiversity Framework.

The third target (T3) within this strategy—Canadian Protected and Conserved Lands 30 x 30—specifically outlines the status and next steps to achieve the 30 per cent protection goal, noting that it will be tracked by the Canadian Protected and Conserved Areas Database (CPCAD) and submitted to the World Database of Protected Areas annually. They note that the Federal government only manages about six per cent of the lands and freshwater in the country. Canada acknowledges that to meet T3, they will need to collaborate with many organizations and levels of government. To date, 12 NPCA conservation areas have met the required criteria to be counted towards T3 for a total of 1,622 hectares, and 16 additional conservation areas have been assessed and submitted for consideration. The 12 approved properties, evaluated in partnership with Ontario Nature, are all accessible to the public, except for Lathrop, and were assessed for their unique ecological characteristics and diverse ecosystems and determined to meet the strict national standards for biodiversity protection, qualifying them as Protected Areas. Not only do these areas contribute to local and provincial natural heritage and biodiversity conservation, but they are recognized as federally important for climate change mitigation and protection of species, habitats, ecosystem services, and people. Internationally, these lands also represent a collective effort towards global biodiversity conservation and a shared goal to combat the impacts of climate change.

As seen through the unique landscape in the Niagara Peninsula watershed—its important natural and cultural heritage areas, the Niagara and Onondaga Escarpments, several watercourses, wetlands, the bi-national Niagara River, and the shorelines for two Great Lakes—NPCA conservation areas augment and protect natural heritage, and natural hazards within its jurisdiction, while contributing to provincial, federal, and international conservation goals and targets.

## 5.2 Making Connections

NPCA is committed to making connections and integrating conservation areas with provincial, municipal, and other publicly accessible lands located within the Niagara Peninsula watershed. Map 5 provides an overview of lands owned by the province, local municipalities, and other publicly accessible lands within NPCA's jurisdiction to demonstrate how NPCA lands integrate and connect with these areas to support conservation and trail systems. It should be noted that the St. Lawrence Seaway lands (federally owned), as well as Ontario Power Generation lands (provincially owned) are not mapped for security and safety reasons, though they are included in the write-up below as they are often connected natural corridors or contribute to natural heritage but not available for public access.

### 5.2.1 Municipal Lands

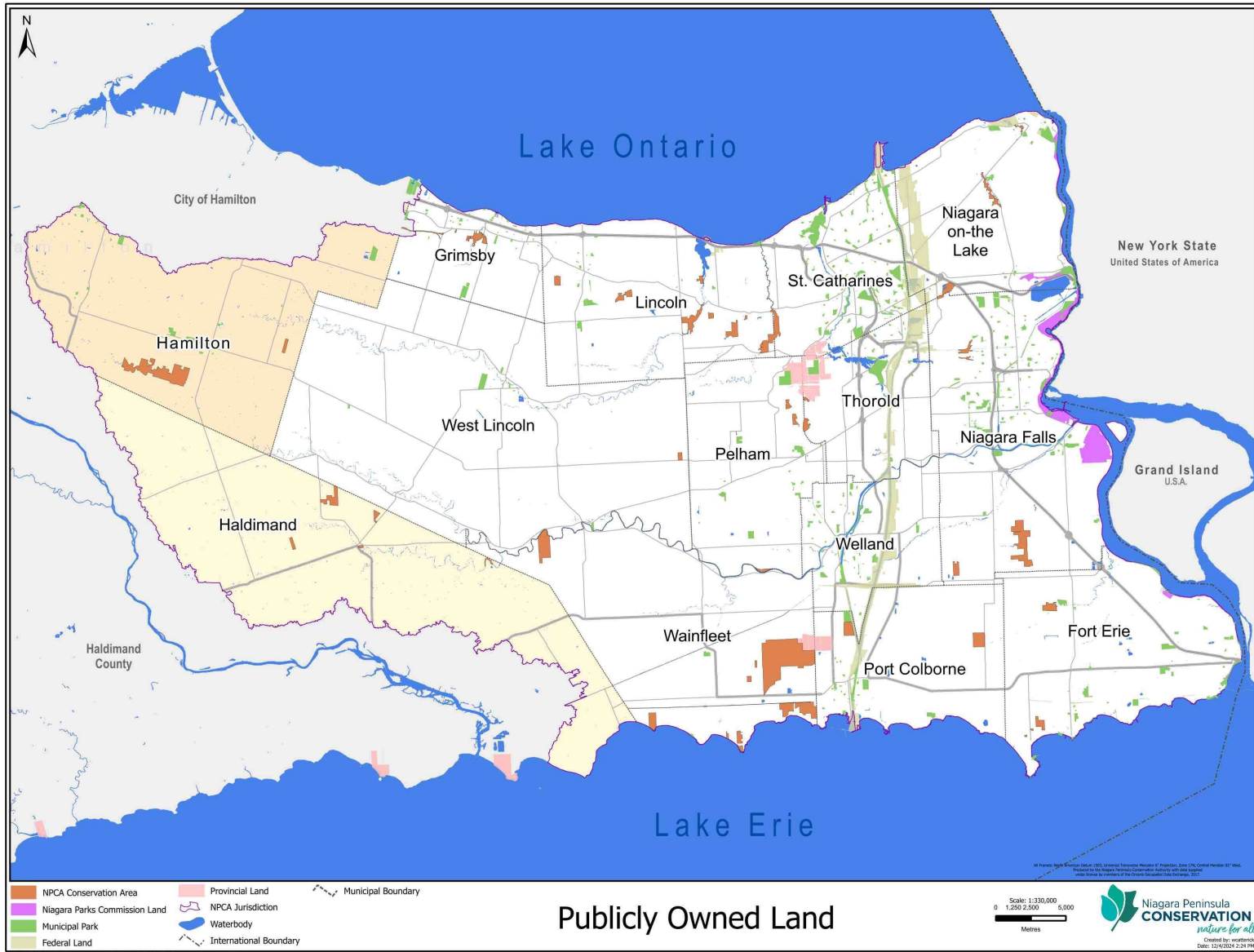
There are two single-tier, one upper-tier and 12 lower-tier municipalities in the Niagara Peninsula watershed that own or manage publicly accessible lands. Most city-owned lands are open park areas with fewer natural features compared to NPCA conservation areas but provide accessible greenspace for residents, and sometimes act as linkages between natural areas and active transportation routes.

Some notable lands owned by local municipalities in the Niagara Peninsula watershed include DeCew Falls and Morningstar Mill, Malcolmson Eco-Park, Fireman's Park, Fairview Cemetery, Port Robinson Eco-Park, Burgoyne Woods, and many more. Burgoyne Woods is an example of a larger municipal park, approximately 50 hectares, which includes both open space for picnics and activities, natural forested areas with walking trails, and a leash-free dog park.

In recent years, NPCA has launched the Trees for All program aimed at increasing the canopy cover in the Niagara Peninsula watershed through tree planting efforts with local municipalities and private landowners. Through this program, NPCA has collaborated with interested municipalities to identify significant sections of their lands that have the potential for restoration and naturalization efforts, to work towards collective efforts and shared goals for increasing biodiversity, mitigating the impacts of climate change, reducing urban heat island effects, increasing natural cover, and improving the overall health of the watershed. This program exemplifies NPCA's commitment to working with other levels of government for the shared stewardship of the watershed ecosystem.

Based on the information in NPCA's Land Securement Strategy, the above-noted programs, and the map of municipal lands in the Niagara Peninsula watershed jurisdiction, there is a clear desire for municipal partners and NPCA to work together to secure and protect additional lands that support the area's natural heritage system.

Map 5: Map of Publicly Owned Lands



## 5.2.2 Provincial Lands

Within NPCA's jurisdiction, there are two provincially protected properties—Short Hills Provincial Park and Wainfleet Bog Conservation Reserve—in addition to lands owned by Ontario Power Generation and Niagara Parks. The Ontario Heritage Trust (OHT) has also conserved several natural heritage properties within the Niagara Peninsula watershed.

### 5.2.2.1 Short Hills Provincial Park

Short Hills Provincial Park (Short Hills) is a 688-hectare natural environment class park on the southwest edge of St. Catharines, in the Niagara Region. The park provides protection for provincially significant life science and earth science features, notably the Niagara Escarpment and Carolinian forests. Short Hills is also a Nodal Park in the NEPOSS, which are parks intended to serve as key staging areas, interpretive centres for each section of the escarpment, and major starting places for exploring other nearby parks.

Short Hills currently provides five scenic nature trails that are accessible for the public to enjoy, though it is designated as a non-operating park due to the limited visitor amenities. The park is adjacent to the 34-hectare Camp Wetaskiwin, owned and operated by Scouts Canada, and near the 20-hectare Short Hills Nature Sanctuary, owned by the Hamilton Naturalists' Club. It is further augmented by NPCA's St. Johns Centre and connected through forested natural features to Lathrop and St. Johns conservation areas. NPCA conservation areas augments this provincial park by increasing the amount of protected area, widening the buffer and interior habitats, preserving important headwaters of Twelve Mile Creek, and maintaining forest cover to prevent erosion in this unique cold-water subwatershed.

### 5.2.2.2 Wainfleet Bog Conservation Reserve

The Wainfleet Bog Conservation Reserve is a 230-hectare property that makes up part of the larger Wainfleet Bog PSW complex, the largest peatland area remaining within the Carolinian region of Ontario. "The ANSI portion of the reserve provides habitat for approximately 283 species of vascular plants. A total of 52 species of birds have been observed recently within the reserve or in the immediate vicinity, of which 30 species are believed to be breeding. Among the vascular plants, 11 species are provincially significant. It is also habitat for three provincially significant species of reptiles (eastern massasauga rattlesnake, spotted turtle, and black rat snake) and five provincially significant birds (yellow-breasted chat, least bittern, tufted titmouse, short-eared owl, and white-eyed vireo)." (Ontario website: <https://www.ontario.ca/page/wainfleet-bog-conservation-reserve-management-statement>)

The Wainfleet Bog Conservation Reserve is an integral part of the larger Wainfleet bog protected area owned and managed by NPCA and the Nature Conservancy of Canada. Together, these lands protect and manage an especially important natural feature that holds provincial, federal, and local significance, and support the international biodiversity and climate change goals agreed to at COP15.

### 5.2.2.3 Niagara Parks

Niagara Parks (formally known as The Niagara Parks Commission) is a self-financed agency of the Provincial Ministry of Tourism, Culture, and Gaming. This agency is the steward of approximately 1,325 hectares of land (with at least one-third maintained as natural) along a 56-kilometre stretch of the Niagara River that links Lake Erie and Lake Ontario, including the Niagara Gorge, the Horseshoe Falls, and Dufferin Islands. Since 1996, the Niagara River corridor has been recognized as an Important Bird and Biodiversity Area due to its important migratory, seasonal, and permanent habitat for many native bird species.

Since the early 1990s, NPCA and Niagara Parks have collaborated on improving the Niagara River's habitat and overall ecosystem health, as part of the Niagara River Remedial Action Plan (NRRAP) program. Through the Niagara River Remedial Action Plan (NRRAP), Niagara Parks and its partners, including NPCA, have created seven coastal wetlands, enhancing 8.5 hectares of habitat and restoring nearly two kilometres of shoreline along the Niagara River. Niagara Parks recently pledged to increase native shoreline vegetation along the river from 35 per cent to 75 per cent coverage and to expand tree canopy cover to 35 per cent. These efforts aim to protect the shoreline and enhance biodiversity on their lands. Such initiatives highlight the value of collaboration in preserving and improving shared natural resources, including public greenspaces.

### 5.2.2.4 Ontario Power Generation

The Province of Ontario owns Ontario Power Generation (OPG). OPG lands, often situated along watercourses and canals, are also vital natural areas. While most are not accessible to the public due to safety and security considerations, OPG has collaborated with NPCA and other partners to restore and manage select sections, enhancing habitat and biodiversity within these areas. One property is adjacent to DeCew Falls—Morningstar Mill which is owned by the City of St. Catharines and adjacent to Short Hills Provincial Park. OPG lands, though they do not typically augment public access to natural areas, still contribute to the natural cover, habitat value, and biodiversity goals of other organizations and agencies.

### 5.2.3 Federal Lands

There are a few parcels of federally owned land in NPCA's jurisdiction, most notable from a natural heritage perspective are lands known as Lakeshore properties or Niagara Shores, along the shoreline of Lake Ontario east of Four Mile Pond, in the Town of Niagara-on-the-Lake administered by Parks Canada. This area is accessible to the public for natural and heritage appreciation and is designated a National Historic Site. Within the Niagara Peninsula watershed, small parcels of federally owned land primarily consist of historic heritage sites, such as the Fort George National Historic Site, which are tied to the War of 1812. Additionally, there are federal lands owned by the St. Lawrence Seaway Authority that contribute to natural heritage, biodiversity, and habitat locally, though most are not publicly accessible for safety and security reasons, except for a few sanctioned trails and walking paths.

### 5.2.4 Land Trusts



The Nature Conservancy of Canada (NCC) owns one parcel of land called the Lathrop Nature Preserve, located in the Town of Pelham at the headwaters of Twelve Mile Creek—the only cold-water stream in the Niagara Peninsula watershed, home to the only self-sustaining population of native Brook Trout in Niagara. More than 100 years ago, a railway bisected the property creating a dam in Twelve Mile Creek and two artificial ponds on the property. Today, the former railway berm is a publicly accessible trail, connecting the Lathrop property to Marlene Stewart Streit Park, owned by the Town of Pelham, and the downtown core of Fonthill. The NCC Lathrop property is less than two kilometres from NPCA’s St. Johns Conservation Area and one of the two parcels that make up NPCA’s Lathrop Conservation Area. There are many opportunities in this area to connect and create linkages between the NCC Lathrop property, NPCA’s Lathrop parcels, Short Hills Provincial Park, and two other NPCA conservation areas—St. Johns and St. Johns Valley Centre.

Most land trusts are primarily focused on securing natural heritage lands to protect significant ecological features; therefore, it is important for NPCA to continue collaborating with land trusts to further its conservation goals through land securement. Several land trusts operate within the watershed jurisdiction of the NPCA, including the Bruce Trail Conservancy (BTC), Niagara Land Trust (NLT), NCC, Ontario Heritage Trust (OHT), Head-of-the-Lake Land Trust (HLLT), managed by Hamilton Naturalists’ Club, and Ontario Nature. Other land trusts that NPCA could work with to further augment protected areas in the watershed include Ducks Unlimited Canada, Niagara Escarpment Biosphere Conservancy, and Ontario Farmland Trust. To date, land trusts have secured more than 240 hectares within NPCA’s jurisdiction.

### 5.2.5 Trail Systems

Trails have been a defining feature of the Niagara Peninsula landscape since time immemorial and there is a significant network of trails throughout NPCA’s jurisdiction that are owned and managed by municipalities, regional government, Bruce Trail Conservancy, or other organizations and agencies. National trends overwhelmingly indicate a growing demand for trails and in addition to the large network of sanctioned trails, there is likely a sizeable network of unsanctioned and unmanaged trails made by people who want additional opportunities to walk, hike, or bike in their community or neighbourhood.

The Bruce Trail stretches over 890 kilometres along the Niagara Escarpment, with an additional 400 kilometres of side trails. Extending from the Niagara River to Tobermory, it is managed and protected by the Bruce Trail Conservancy (BTC). There are two sections of their extensive trail network in the Niagara Peninsula watershed, the Niagara Section, and the Iroquoia Section. The very first blaze of what was to become the Bruce Trail was placed on the farm of Derby Bucknall by members of the Niagara Escarpment Trail Council in 1962, which is now part of NPCA’s Cave Springs Conservation Area. Many sections of the Bruce Trail run through NPCA conservation areas or connect to its hiking trails, while others are on private land or part of other protected areas like Short Hills Provincial Park. Since 2017, Plenty Canada, along with a network of allies, has worked on the Great Niagara Escarpment Indigenous Cultural Map and the

Greenbelt Indigenous Botanical Survey. Both include NPCA escarpment conservation areas and serve to document, celebrate, and safeguard important Indigenous heritage resources along the Bruce Trail.

Other significant trails in the Niagara Peninsula watershed include the Niagara River Recreational Trail owned and managed by Niagara Parks, the Great Lakes Waterfront Trail (Waterfront Trail), Trans Canada Trail, Welland Canals Parkway, the Friendship Trail, the Greenbelt Loop, Laura Secord Legacy Trail, Upper Canada Heritage Trail, and the Short Hills Provincial Park trail system. The Chippawa Trail, part of Trans Canada Trail, connects Niagara to Haldimand, Hamilton, and beyond.

The Welland Canals Parkway is an important connecting route between the south and north ends of the Niagara Peninsula, running between Port Colborne and St. Catharines, with the Friendship Trail connecting the Welland Canals Trail to the Niagara River Recreational Trail.

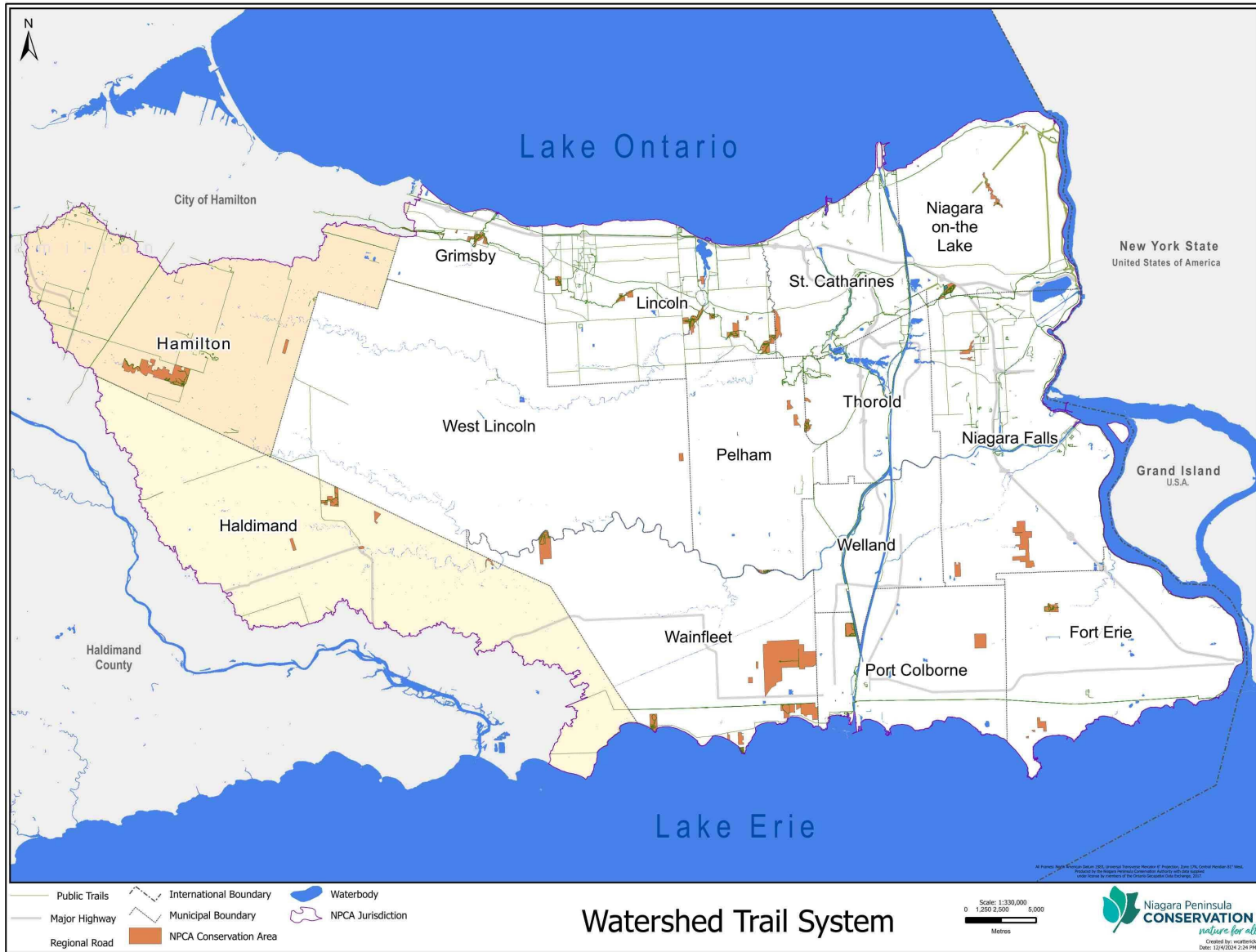
Several important local trails are managed and maintained by local municipalities and provide important recreational opportunities for local community members and visitors to enjoy. Some are shorter local trails while others are important arteries to larger trail networks like Bruce Trail or the Waterfront Trail or can be connections between neighbouring municipalities like the Friendship Trail between Fort Erie and Port Colborne, or the Steve Bauer Trail between Welland and Pelham.

Based on the assessment, it is evident that there is an extensive network of trails in the Niagara Peninsula watershed (Map 6), with potential for additional connections and linkages that could be supported by NPCA's Land Securement Strategy, Strategic Plan, and CA Strategy, and partnerships with local municipalities, land trusts, conservation groups, and the Bruce Trail Conservancy.

#### 5.2.6 NPCA Trails

NPCA owns and manages more than 200 kilometres of trails on 24 properties. These trails are one of the most important ways NPCA connects the community to natural and cultural heritage—providing opportunities for recreation, active transportation, healthy living, education, community science, and nature appreciation.

Map 6: NPCA Watershed Trail System



Some of NPCA conservation areas provide direct connections to other existing trail networks in the watershed. For example, the Trans Canada Trail includes a section of NPCA's Gord Harry Trail which connects to Wainfleet Wetlands Conservation Area, and overlaps with the Laura Secord Legacy Trail, Friendship Trail, and the Niagara River Recreational Trail. The Waterfront Trail section in NPCA's jurisdiction runs along the north shore of Lake Erie, up the Niagara River via the Niagara River Recreational Trail, and across the southern shore of Lake Ontario, including a loop through Jordan Harbour and Ball's Falls conservation areas. There are NPCA conservation areas located near or along the Waterfront Trail including Wainfleet Wetlands, Morgan's Point, Gord Harry Trail, Long Beach, and the Wainfleet Bog.

Additionally, the Bruce Trail links several NPCA trails along the Niagara Escarpment and connects NPCA conservation areas to other notable trails in Short Hills Provincial Park, as well as DeCew Falls and Morningstar Mill, and Mel Stewart Park in Thorold, as well as areas outside of the watershed.

The CA Strategy trail connection and potential linkages assessment highlights numerous opportunities for enhancing connections between NPCA conservation areas and local trails and parks. These opportunities align with the goals and objectives of the CA Strategy, the Land Securement Strategy, and NPCA's Strategic Plan.

## **6.0 CONSERVATION AREA LAND USE CATEGORIES**

Section 10 (1) 4. of O. Reg 686/21 requires all conservation authorities to establish land use categories to classify their lands based on the types of activities carried out on each parcel of land or other matters of significance related to them.

Land use classification for public land management can be approached from several broad perspectives. National and provincial park agencies often use classifications based on academic frameworks and industry best practices. While this approach can be valuable, conservation areas serve a distinct role compared to national or provincial parks. Park classifications designed for large, national, or regional areas may not be suitable for smaller, local conservation areas connected to municipal parks. Additionally, planning and policy-based definitions may not always provide clear guidance on permitted uses, programs, or services offered.

Alternatively, an administrative approach can be implemented, classifying lands based directly on their operational purpose. This approach offers a nuanced, straightforward method for managing and allocating resources while providing clear public messaging. This approach is easily adaptable within a municipal setting. As a result, NPCA has adopted land use categories (developed with guidance from Conservation Ontario) that recognize that not all conservation areas are the same. One of three primary land use categories has been assigned to each NPCA conservation area. Where needed, secondary or tertiary

categories will be added through management plans and work in tandem with conservation area zoning to appropriately allocate programs and services within the conservation area.

It should be noted that while there are different land use categories, the overall goal for all NPCA conservation areas is protection and management. Active or passive recreation should be considered complementary to this overarching purpose and should not negatively impact the natural functions, biodiversity, or protection of these areas. It is equally important to note that land use classifications are not fixed. Classifications may change over time as conservation areas are influenced by aspects such as increased visitation, a changing climate, or strategic direction. A summary of the land use classification is included in Table 4.

### **6.1 Conservation Area – Active Recreation**

NPCA conservation areas offering active recreation have historically been referred to as flagship parks. These conservation areas offer a wide range of recreational opportunities and programs and therefore, they experience the highest usage and most intense visitor activity. They feature gated access, with entry fees required, and staffed gates for daily operations. Operational seasons may vary, ranging from year-round to season-specific, depending on the recreational and program offerings at each site. Passive recreational activities, such as hiking and nature viewing, are also available. While providing opportunities for recreation, natural heritage protection remains a priority and is still present throughout most of the conservation area.

Currently, NPCA has four conservation areas in this category: Ball's Falls, Binbrook, Long Beach, and Chippawa (Table 4).

### **6.2 Conservation Area – Passive Recreation**

NPCA conservation areas offering passive recreation have historically been referred to as passive parks. These experience low to high visitation levels focused on passive trail-based activities like hiking and are open to the public or permitted users with limited operating seasons. Access is generally through a single entry-point, which may include a gate, and entry fees could apply. Education programs and other permit-based activities, such as weddings, hunting, and academic research, may also take place. Some programs and services are offered by third-party operators or lease or license holders. NPCA operational and land care staff are present only as needed. Natural heritage protection is a primary focus at these conservation areas, with potential for resource management and restoration activities.

Currently, NPCA has 16 conservation areas in this category (Table 4).

### 6.3 Natural Heritage and Hazard Lands

Natural Heritage and Hazard Lands are generally not open to the public or have limited infrastructure to support visitation (e.g., Comfort Maple). Access is usually limited to a single entry-point that may include a gate for safety and enforcement purposes. Education and other permit-based programs, such as hunting and academic research, may also take place. NPCA operational and land care staff are present only as needed. Natural heritage protection and hazard management are priorities in these conservation areas, with potential for resource management and restoration activities.

Currently, NPCA has 21 conservation areas in this category (Table 4).

**Table 4: Summary of NPCA Conservation Areas by Land Use Category**

LAND USE CATEGORY	TOTAL	CONSERVATION AREAS IN THIS CATEGORY	
<b>Conservation Area - Active Recreation</b>	4	Ball’s Falls	Chippawa Creek
		Binbrook	Long Beach
<b>Conservation Area - Passive Recreation</b>	16	Beamer Memorial	Mountainview
		Cave Springs	Mud Lake
		E.C. Brown	Rockway
		Gord Harry Mem. Trail	Ruigrok Tract
		Hedley Forest	St. Johns
		Jordan Harbour	Stevensville
		Louth	Wainfleet Wetlands
		Morgan’s Point	Woodend
<b>Natural Heritage &amp; Hazard Lands</b>	21	Baird Estate	Point Abino-McGowan
		Binbrook Tract	Point Abino-Philips
		Canborough	Port Davidson
		Comfort Maple	Shriner’s Creek
		Eight Mile Creek	Smith-Ness Forest
		Gainsborough	St. Johns Centre
		Humberstone Marsh	Two Mile Creek
		Lakewood	Virgil Dam and Reservoir
		Lathrop	Wainfleet Bog
		Oswego Creek	Willoughby Marsh
			Woolverton

### 6.4. Conservation Area Zoning

While a classification model helps guide the overall intent of each property within NPCA’s conservation area system, it is often used alongside site-specific zoning to balance greenspace access with protection.

Like a municipal Official Plan supported by a zoning by-law, zoning within conservation areas designates specific activities, uses, and programs that are suitable to the areas. This approach enables the simultaneous protection of natural features and functions while facilitating the development of recreational programs and activities.

Zone types may vary from development or recreation to nature reserves and resource management. Application of zone types is designed to support both the overall conservation area classification as well as goals and objectives specific to the area. Land use categories and supporting zoning will be refined within each conservation area management plan.

## **7.0 COMMUNICATIONS & ENGAGEMENT**

The development of the Conservation Area Strategy was guided by a collaborative process that emphasized the importance of engagement with a wide range of interested parties. Through active engagement for a concentrated period of 30 days, staff gathered diverse perspectives to ensure the strategy reflects the priorities and values of the communities we serve. Staff also gained valuable insights into the community's understanding of the needs of the Niagara Peninsula watershed. This engagement approach fostered a deeper understanding of the natural, cultural, and recreational priorities that will shape the future of NPCA conservation areas.

Through an intentional communications and engagement strategy, staff employed a multi-channel approach to meet our communities where they are. With accessibility and inclusivity as guiding principles, we leveraged a combination of traditional and digital methods to inform and engage a wide range of internal and external audiences.

NPCA employed best-efforts to engage Indigenous partners and peoples, partner municipalities and government agencies, residents, conservation area users, volunteers, local interest groups, environmental groups and non-government organizations, business owners, members of the agriculture, environment, planning, development, tourism, and education sectors, and the public within Niagara Region, Haldimand County, and the City of Hamilton.

Key outreach efforts included a Public Information Centre (PIC), sector-specific stakeholder meetings, direct emails, and targeted social media campaigns. The use of both in-person and online engagement opportunities helped ensure accessibility for diverse audiences and broad participation.

NPCA staff, Board of Directors, Public Advisory Committee (PAC), and the Niagara Peninsula Conservation Foundation played an essential role in shaping the Conservation Area Strategy. Staff, as the experts on the ground, had opportunities to share their insights and feedback through meetings, emails, and discussions. Their daily experience and expertise served as a vital sounding board for the project. The Board and PAC

were provided updates, and offered valuable input, with PAC members also helping to share information and encourage feedback within their communities and networks.

NPCA’s online engagement platform, [Get Involved NPCA](#), served as the hub for the CA Strategy project, keeping the community informed with up-to-date information. Among the various tools was a 10-minute survey designed to gather community input on the proposed goals and objectives developed by NPCA staff.

**Table 5: Public Engagement Results**

Key Tools & Tactics	Results
<b>Get Involved NPCA</b>	1,800 web visits
<b>On-line Survey</b>	62 responses
<b>Hybrid Public Information Centre + video</b>	23 registrations 9 attended virtually 4 attended in person 99 video views
<b>Organic and Paid Social Media</b>	97,227 reach 1.51% engagement rate

Preliminary analysis of the survey responses, comments, feedback, and discussions led to the following key findings related to how the community engages with NPCA conservation areas:

- The majority of respondents visit NPCA conservation areas a few times per month to enjoy nature, exercise, and improve their mental health.
- They value conservation areas because they offer opportunities to connect with nature, enjoy passive recreation, and they support biodiversity and habitat for plants and wildlife.

Survey results show strong public support for the draft goals as per below:

**Table 6: Survey results for agreement level and ranking of draft goals**

Goal <i>Agreement Level</i>	<i>Rank</i>	
Protection and Management	97%	1
Greenspace Access and Connectivity	90%	3



Goal <i>Agreement Level</i>	<i>Rank</i>	
Sustainability and Enhancement	94%	2
Climate Change Adaptation and Mitigation	87%	4
Engagement and Collaboration	90%	5

Approximately 60 per cent of survey respondents provided additional detailed and thoughtful feedback. This demonstrates a highly engaged audience eager to participate in the development of the CA Strategy. The survey responses reflect diverse perspectives, ranging from specific operational suggestions to broader environmental concerns. This level of participation highlights the community’s deep connection to conservation areas and their desire to see these spaces protected and managed effectively.

Common themes in survey comments included:

- Biodiversity protection, managing access, enforcement against non-permitted uses, invasive species concerns, increasing natural corridors and acquisitions, partnerships and collaboration, climate change, and signage and education.
- Climate change considerations, such as flood mitigation, tree canopy targets, and invasive species management, were mentioned frequently. Respondents prioritized actions to anticipate and mitigate environmental impacts.
- Accessibility improvements and enhanced recreational opportunities were highlighted, with mixed feedback on balancing public access and conservation. Concerns included maintaining natural spaces while allowing controlled public use.
- Respondents stressed the need for better enforcement against non-permitted activities, such as pollution, overuse, and misuse of conservation areas. They also called for more active management, including invasive species control and maintenance improvements.
- Respondents highlighted the importance of public education about conservation and engaging with partners to achieve shared goals. There was a desire for NPCA to involve diverse communities, including newcomers and local municipalities, in its outreach and planning.

The survey responses provide a clear roadmap for aligning NPCA’s strategies with public priorities. While challenges such as funding limitations, enforcement needs, and balancing access with conservation are noted, the feedback offers actionable insights and reinforces the shared value of preserving the Niagara

Peninsula watershed's natural heritage. By addressing these themes, NPCA can strengthen its role as a steward of the environment and a partner to the community.

The feedback received through internal and external engagement was thoroughly reviewed by the project team and helped to refine the goals and objectives, land use categories, and other aspects of the CA Strategy. The project team integrated the common themes by adding climate change as a guiding principle for the document, as noted in Section 2.2, rather than a goal. This change emphasizes that the CA Strategy will apply a climate change lens for all future projects, plans, and strategies related to conservation areas. Internal and external engagement themes showing clear priorities noted above helped to further refine the goals and objectives in Section 3 by focusing on four rather than five goals and establish clear objectives that would help achieve these goals through future action plans with measurable targets.

## **8.0 PERIODIC REVIEW**

Under O. Reg. 686/21: Mandatory Programs and Services, the NPCA is required to establish a process for the periodic review and updating of the CA Strategy, including procedures to ensure that stakeholders and the public are consulted.

The CA Strategy will be treated as a living document, with NPCA committing to assess the need for a comprehensive review on a five-year cycle. Various influencing factors—such as technological advances, socioeconomic changes, emerging political and environmental issues—will be analyzed to determine the appropriate level of review. In cases of exceptional circumstances, such as legislative changes, the NPCA may undertake an earlier update to ensure the strategy remains compliant and aligned with governing legislation, where required. Staff will seek direction from the NPCA Board of Directors to proceed with such updates, as necessary.

For each update, NPCA will develop an engagement plan to involve watershed residents and partners, Indigenous communities, local stakeholders, and other interested parties. A workplan outlining key tasks and general timelines will also be presented to the NPCA Board of Directors at the initiation of any updates, ensuring transparency and accountability throughout the process.

## **9.0 FUTURE CONSIDERATIONS**

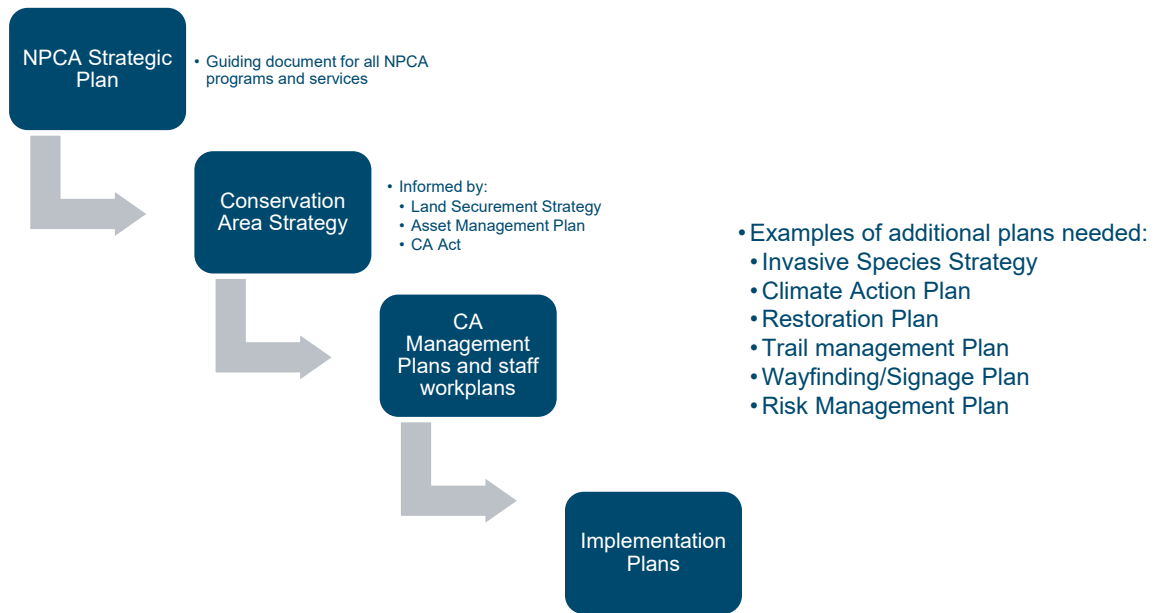
NPCA is an important environmental resource management organization dedicated to preserving and enhancing local natural heritage. It provides access to breathtaking natural areas, delivers impactful educational and stewardship programs, and serves as a trusted source of scientific expertise for partners and the community. By safeguarding people and property from natural hazards, protecting drinking water

sources, and restoring the watershed, NPCA ensures the long-term health and resilience of the environment for the benefit of all who call this region home.

NPCA recognizes that as an organization, it must remain flexible and adaptable to change over the next decade. We continue to navigate and respond to changes to the *Conservation Authorities Act*, prioritizing the transition and legislative requirements as we continue to revitalize the organization. Furthermore, we understand that the Niagara Peninsula watershed will experience growth, intensification, and extreme weather impacts, as well as a tremendous need for greenspace. We look forward to continuing to collaborate with our communities, partner municipalities, conservation heroes, and our Board of Directors and staff to operationalize and implement the goals and objectives of the CA Strategy.

Collectively, NPCA's Strategic Plan, Land Securement Strategy, Climate Action Plan, and CA Strategy will guide our actions for accomplishing the goals and objectives outlined in this document while working toward our vision of *Nature for all*. Our mission to create a common ground for conservation-inspired action and accountability to nature is exemplified through our work every day as we develop management plans, action plans, and workplans to operationalize the CA Strategy.

Assessment of NPCA conservation areas in the context of the watershed natural heritage features, and the network of trails, has highlighted the opportunities that exist to augment and create linkages between natural areas, trails, and other publicly accessible lands. These opportunities are supported and aligned with the NPCA's Strategic Plan, Land Securement Strategy and the goals and objectives found in Section 3.0 of this strategy. As NPCA moves towards the development and implementation of property-specific plans (e.g., invasive species strategy and restoration plans), these items will be prioritized based on future workplans and budgets and will be aligned with relevant internal plans and policies (e.g., asset management plan). Development of management plans for each of the 41 conservation areas will take years to complete, but each will be guided by the goals and objectives of the CA Strategy. Each management plan will have its own engagement plan throughout the design and implementation stages to ensure that there is community involvement, support, and understanding for each conservation area plan.



**Figure 3: NPCA Strategic Planning Context**

Continued commitment and support of the NPCA Board of Directors, staff, and our partners in conservation will help to move us forward into the future to ensure a resilient watershed for future generations, and for those who may not always have a voice at the table but deserve biodiverse and healthy natural areas to call home (plants, animals, insects). NPCA is thankful for the continued friendship and collaboration with landowners, municipal partners, friends of groups, conservation clubs, watershed residents, volunteers, Indigenous partners, conservation area users, local businesses, farmers, and school boards for working with us, being stewards of nature and the environment, and for their passion and deep appreciation for the beautiful Niagara Peninsula watershed—the life source for all who live here.

## 10.0 RESOURCES

Bruce Trail Conservancy - <https://brucetrail.org/>

Canadian Protected and Conserved Areas Database - <https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/protected-conserved-areas-database.html>

Conservation Authorities Act <https://www.ontario.ca/laws/statute/90c27>

Conservation Ontario Guidance on the Conservation Authority Mandatory Conservation Area Strategy, 2022. (Document)

Conservation Ontario <https://conservationontario.ca/>

Escarpment Biosphere Conservancy <https://escarpment.ca/>

Great Lakes Waterfront Trail - <https://waterfronttrail.org/>

Greenbelt Plan - <https://files.ontario.ca/greenbelt-plan-2017-en.pdf>

Mississauga of the Credit First Nation - <https://mncfn.ca/>

Niagara Agriculture Profile report (Sept 2023) -<https://pub-niagararegion.escribemeetings.com/filestream.ashx?DocumentId=33077>

Niagara Escarpment Biosphere Network <https://nebnetwork.org/>

Niagara Escarpment Plan - [https://files.ontario.ca/appendix\\_-\\_niagara\\_escarpment\\_plan\\_2017\\_-\\_oc-10262017.pdf](https://files.ontario.ca/appendix_-_niagara_escarpment_plan_2017_-_oc-10262017.pdf)

Niagara Geopark <https://www.niagarageopark.com/>

Niagara Parks <https://www.niagaraparks.com>

NPCA Land Securement Strategy 2022-2032 (Document)

NPCA Strategic Plan 2021-2031 [https://npca.ca/images/uploads/common/Strat\\_Plan\\_-\\_2021-31\\_Web.pdf](https://npca.ca/images/uploads/common/Strat_Plan_-_2021-31_Web.pdf)

NPCA Watershed Report Card [https://npca.ca/images/uploads/common/WRC\\_NPCA\\_2023\\_-\\_CO.pdf](https://npca.ca/images/uploads/common/WRC_NPCA_2023_-_CO.pdf)

Ontario Biodiversity Council, 2024, State of Ontario's Biodiversity <https://sobr.ca/>

Six Nations of the Grand River First Nation - <https://www.sixnations.ca/>

Trans Canada Trail <https://tctrail.ca>