Overview of the Conservation Implementation Plan

for the Long Point Walsingham Forest Priority Place

Environment and Climate Change Canada
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Photo © Nature Conservancy Canada

Land Acknowledgement

We recognize that the Long Point Walsingham Forest Priority Place is situated upon the Treaty Lands and Territory of the Mississaugas of the Credit First Nation and the Traditional Territory of the Haudenosaunee and Huron-Wendat. We recognize and acknowledge the continued impacts of colonialism and residential schools that disrupted Indigenous Peoples relationships with the lands. Southern Ontario is home to many First Nations and Métis Peoples and through this acknowledgement it is our intent to show respect for the people who have stewarded these lands and waters since time immemorial and those who continue to care for them. Through this acknowledgement, we are reminded of our connection to this land and commit ourselves to learn and work together in the spirit of reconciliation.

Acknowledgements

The Long Point Walsingham Forest Priority Place is part of the Norfolk County community. It is a working landscape that provides for the community. Agricultural livelihoods are an important value which is recognized and considered through the Priority Place work.

We would like to thank all members of the Long Point Walsingham Forest Priority Place Collaborative and funders for their contributions to this initiative. Because of their efforts, a great deal of work has been accomplished in this Priority Place, resulting in conservation actions that benefit species at risk and other wildlife, such as migratory birds.

Much of this document includes material from the Long Point Walsingham Forest: Conservation Implementation Plan (2018-2026). Many people contributed to the conceptualization and writing of that plan and are thanked for their efforts. The Long Point Walsingham Forest Situation Analysis contains a complete list of contributors. The following organizations are acknowledged and thanked for their significant input into the completion and writing of the implementation plan:

ALUS Norfolk Inc.
ALUS Partnership Advisory Committee
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Delta Waterfowl
Ducks Unlimited Canada
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Forest Gene Conservation Association

Photo © Nature Conservancy of Canada

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Ontario Fruit and Vegetable Growers Association
Ontario Ginseng Growers Association
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Ontario Ministry of the Environment, Conservation and Parks
Ontario Ministry of Natural Resources
Ontario Nature
Ontario Plant Restoration Alliance
Ontario Road Ecology Group
Ontario Soil and Crop Improvement Association
Pterophylla Farm
St. Williams Conservation Reserve
Tallgrass Ontario

Photo © Mary Gartshore

Introduction

Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada

Canada's biodiversity is a cornerstone of our way of life. As human impact on the planet grows, more habitat is lost and more species are at risk of extinction. We need to take innovative action to protect and recover the animals, plants, and places we love. The Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada (Pan-Canadian Approach) shifts from single-species approaches to conservation to approaches that focus on multiple species and ecosystems. Focusing our effort in specific locations with high biodiversity and concentrations of species at risk helps conserve habitat that benefits many species at the same time. It also brings together partners with common goals to improve collaboration and promote shared leadership. Through partnership, we will work to achieve sustainable protection and recovery of species at risk.

Important principles guide collaborative work under the Pan-Canadian Approach:

- shared priorities and leadership
- Indigenous engagement
- strengthened evidence-base for decision making
- aligned investments

We identify priorities using defined criteria, followed by:

- cooperative action planning
- investment and implementation of actions
- monitoring and reporting of results

The results and benefits of action under the Pan-Canadian Approach are:

- better conservation outcomes for more species at risk
- improved return on investment
- increased co-benefits for biodiversity and ecosystems

Priority Places for Species at Risk

Under this approach, 12 Priority Places have been selected across Canada. These places have significant biodiversity, high concentrations of species at risk, and opportunities to advance conservation efforts. In each Priority Place, the federal and provincial or territorial governments are working with Indigenous peoples, organizations and partners to develop conservation implementation plans.

As a whole, Priority Places have a higher percentage of private land than the rest of Canada and socio-economic activities are present on the landscape. We recognize the importance of stewardship by private landowners to the conservation of species at risk in these places and the need to work more broadly to identify conservation opportunities on those lands; we welcome new opportunities for collaboration with interested parties.

The Priority Places are at different stages of cooperative planning and implementation of conservation actions under the Pan-Canadian Approach. In many of these areas, important conservation work has been ongoing for a long time and in some of these places collaborative approaches and conservation planning were already underway before they were chosen as Priority Places. Other Priority Places are new initiatives and are in earlier stages of engagement and collaborative conservation planning. All of these Priority Places build on existing work by implementing coordinated, multi-partner conservation actions in these places, but there is no one size fits all approach to collaborative planning across these diverse places. To learn more about the Priority Places initiative and the work undertaken by our partners to recover species at risk within these Priority Places, please visit our interactive website.

Conservation Implementation Planning in Long Point Walsingham Forest

In Ontario, the Priority Place Initiative is being implemented by the Long Point Walsingham Forest Priority Place Collaborative (the Collaborative). The Collaborative is a partnership of non-government and government organizations that aims to improve biodiversity conservation in Long Point Walsingham Forest through the coordinated identification and implementation of priority conservation actions. The Collaborative may grow as the Conservation Implementation Plan (CIP) is further developed. Subset committees of the Collaborative called "Working Groups" have also been formed for the purpose of collaborating on planning and implementation of priority strategies as outlined in the CIP.

The Collaborative is using Conservation Standards as a framework for collaborative action planning. This internationally recognized tool helps conservation teams provide a clear, systematic approach to designing, managing, implementing, monitoring, and adapting conservation efforts.

This document presents an overview of the Long Point Walsingham Forest Priority Place and a summary of the planning that guides the implementation of conservation work there. This document may be updated as work in the Priority Place continues to evolve. You can find more information on the Long Point Walsingham Forest Priority Place and the completed Conservation Implementation Plan here:

- Long Point Walsingham Forest Priority Place website
- Long Point Walsingham Forest Priority Place Conservation Implementation Plan
- Long Point Walsingham Forest Priority Place Situation Analysis

This document does not replace action plans or management plans under the *Species at Risk Act,* nor does it replace Ontario action plans, legislation or regulations.

Conservation actions in the Priority Places are funded by multiple federal, provincial, and municipal government and non-government partners, including contributions under the Canada Nature Fund and Enhanced Nature Legacy. All strategies that may benefit species at risk conservation in the Long Point Walsingham Forest Priority Place are incorporated into the collaborative planning process. However, the implementation of

strategies is subject to appropriations, priorities, and budgetary constraints of the participating jurisdictions and organizations.

Long Point Walsingham Forest Priority Place

The Long Point Walsingham Forest Priority Place was selected as a Priority Place in 2017. It includes the Long Point sand spit and the Norfolk Forest Complex. It is in the Carolinian Life Zone. This Zone makes up less than 1% of Canada's total land area but has a greater number of species than any other vegetation zone in Canada.

Size: ~90,000 hectares

Description: Carolinian Life Zone along the northern shores of Lake Erie in Norfolk County, Southwestern Ontario

Ecosystem Composition:

- 47% agricultural lands
- 17% forest cover
- 16% wetland cover
- <1% tallgrass prairie savanna and woodland
- <1 % beaches and coastal dunes

Historically the landscape was covered by a mosaic of oak savannah, sand barrens, Carolinian forests, and wetlands. However, during the 19th century much of Norfolk County was cleared for timber and agricultural production, resulting in widespread erosion and topsoil loss that eventually led to many lands becoming unfit for agriculture. Restoration of the landscape began in the early 20th century. Today, agricultural productivity has returned and the area maintains relatively high natural cover as compared to the rest of southwestern Ontario.

Prothonotary Warbler, listed as endangered on Schedule 1 of the federal Species at Risk Act, at Backus Woods. Source: Sue Drotos

This Priority Place is home to plants and animals of the Carolinian Life Zone, many of which are provincially, nationally and globally rare. There are 88 species at risk and more than 64,000 hectares of non-overlapping critical habitat in Long Point Walsingham Forest.

Located along the Atlantic flyway, hundreds of thousands of birds visit Long Point every year, representing 75% of all migrating birds in Ontario. Over 400 different species have been recorded at Long Point, 80 of which breed there.

The Long Point Peninsula and Marshes is one of the most important waterfowl staging areas in North America. It is recognized as an Important Bird Area for its globally

significant numbers of both waterfowl and landbirds. Daily counts of waterfowl at Long Point can reach 100,000 during migration periods.

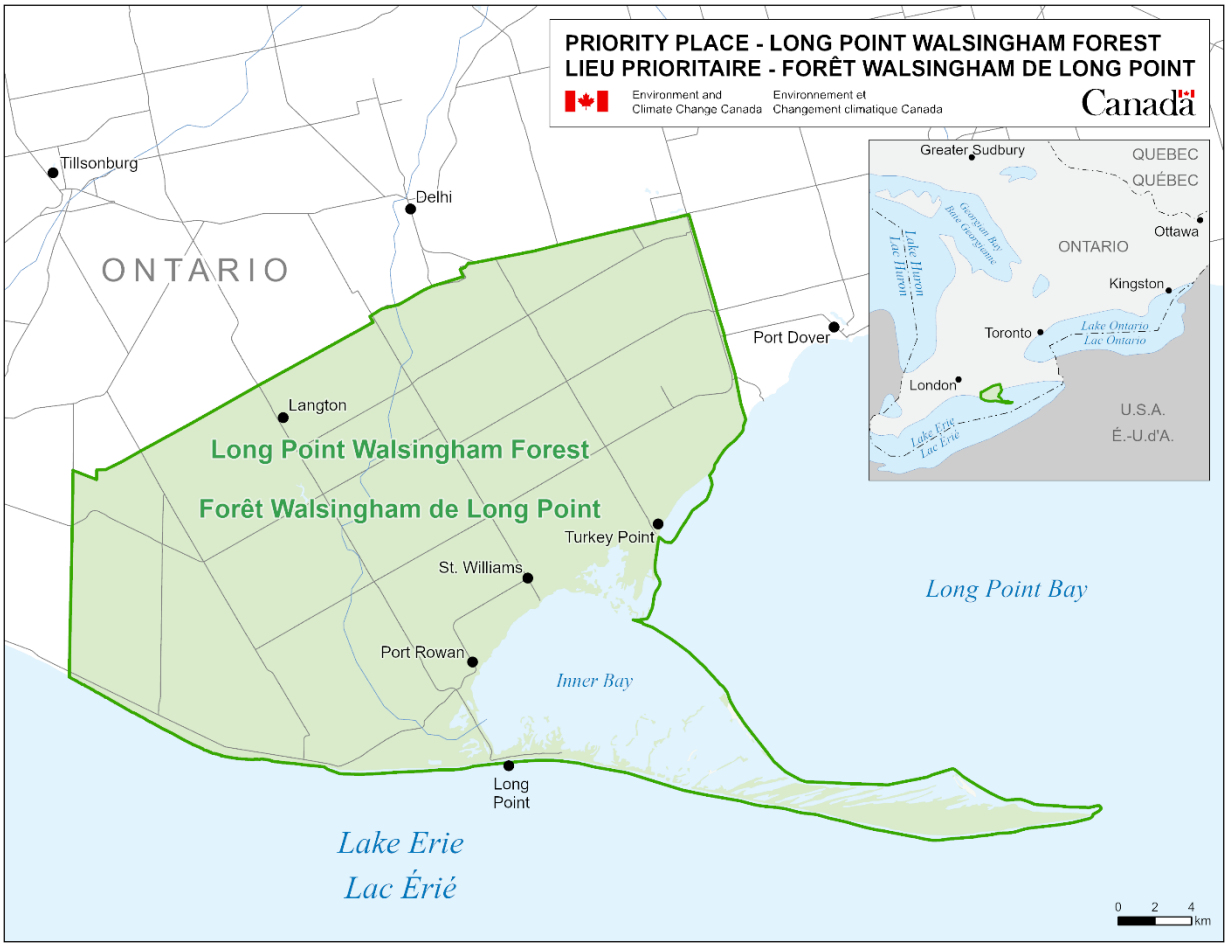


Figure 1. Long Point Walsingham Forest Priority Place Map

Vision Statement

Healthy, resilient and connected ecosystems that support biodiversity, productive landscapes and a thriving community.

Conservation Targets

A conservation target is an element of biodiversity (species, habitat, or ecological system) on which a project is focused in an area. The six main conservation targets for Long Point Walsingham Forest are:

Beaches and coastal dunes

Amphibians and reptiles

Coastal wetlands and inner bay

Watercourses and riparian areas

Forests and treed swamps

Open country

Photo credits: The Nature Conservancy of Canada - Coastal wetlands and inner bay; open country. Environment and Climate Change Canada - Forests and treed swamps; amphibians and reptiles; watercourses and riparian areas; beaches and coastal dunes.

The following goals were developed for each conservation target using key ecological attributes from the Viability Assessment (see Situation Analysis).

	Goals	Conservation Targets
1.	By 2025, 90% of the vegetation in the Coastal Wetlands and Beaches and Coastal Dunes ecosystems is native.	Coastal Wetlands and Inner Bay Beaches and Coastal Dunes
2.	Maintain existing 2018 Forests and Treed Swamps cover and where possible increase/improve interior forest habitat and connectivity through additional forested acreage and forested corridors by 2050.	Forests and Treed Swamps
3.	Maintain and improve the riparian zone so that 75% is vegetated with native plants.	Watercourses and Riparian Areas
4.	By 2025, at least 50% of surface water samples meet the provincial water quality objective for phosphorus (0.03 mg/L for streams and rivers).	Watercourses and Riparian Areas
5.	Reduce wildlife road mortality by enhancing road infrastructure to facilitate safe movement of wildlife across the landscape.	Amphibians and Reptiles
6.	Maintain existing Open Country habitat and restore additional areas, prioritizing sites where: existing habitat patches can be increased in size, habitat patches >=5 ha can be created, patch connectivity is best achieved and/or there are opportunities for long-term management.	Open Country

7.	By 2030, 30% of the Long Point Walsingham Forest Priority Place is conserved and protected.	Coastal Wetlands and Inner Bay Beaches and Coastal Dunes Open Country Watercourses and Riparian Areas Forests and Treed Swamps Amphibians and Reptiles

Current work in this Priority Place focuses on reducing threats to the conservation targets.

Pressures

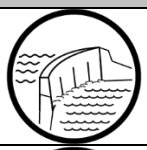
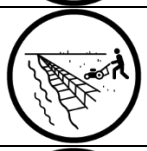
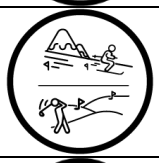
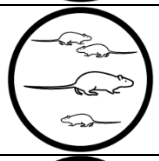
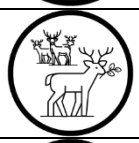
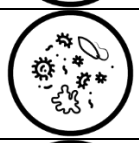
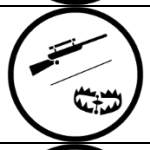
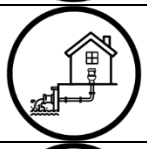
Direct pressures or threats to the conservation targets in Long Point Walsingham Forest were identified and assessed based on their scope or extent, the severity of their impact, and the degree to which their impacts are reversible. An internationally recognized standard for direct threats is used to the extent possible (International Union for Conservation of Nature – Conservation Measures Partnership; IUCN-CMP); some threat names have been adjusted to make them more applicable to the pressures present in Long Point Walsingham Forest (Table 1). The Long Point Walsingham Forest strategies address the following critical pressures: invasive species; fire suppression; roads; agricultural runoff; logging and wood harvesting; and housing and urban areas.

This assessment rated pressures or threats at an ecosystem level within the scope of the Priority Place, and so the outcome may differ from that of species-specific threat assessments found in other documents (e.g. COSEWIC status reports or SARA Recovery Strategies).

Climate-Smart Conservation

Climate change is a significant pressure to biodiversity and species at risk in Priority Places. The current and projected impacts of climate change add additional stress to conservation targets. These include but are not limited to shifting and changing seasons, severe weather events including changes in precipitation, shifting species and ecosystems and potentially exacerbating other pressures and creating new ones. Instead of treating climate change as a direct pressure, the Priority Place is working towards incorporating climate change into all aspects of conservation planning and adaptive management. Many conservation organizations are starting to adopt this “climate-smart conservation” approach. This includes using climate scenario planning to consider the potential impacts of climate change on ecosystems and species, anticipating and managing for change, being adaptable to adjusting strategies and goals, and integrating climate adaptation into conservation actions.

Table 1. Direct Threat/Pressure Rating

Threats/ Pressures	Icon	Rating		Threats/ Pressures	Icon	Rating
1.1 Housing & Urban Areas		Medium		7.2 Dams & Water Management/Use		Medium
1.2 Commercial & Industrial Areas		Low		7.3 Shoreline Hardening & Beach Modifications		Low
1.3 Tourism & Recreation Areas		Low		8.1 Invasive Species		High
4.1 Roads		Medium		8.2 Problematic Native Plants & Animals		Medium
4.2 Utility & Service Lines		Low		8.4 Pathogens & Microbes		Low
5.1 Hunting & Collecting Terrestrial Animals		Low		9.1 Household Sewage & Urban Waste Water		Low
5.2 Gathering Terrestrial Plants		Low		9.3 Agricultural Runoff (point & non-point source)		Medium
5.3 Logging & Wood Harvesting		Low		9.4 Garbage & Solid Waste		Low
5.4 Fishing & Harvesting Aquatic Resources		Low		9.5 Air-borne Pollutants		Low
6.1 Recreation Activities		Low		9.6 Light & Noise Pollution		Low

7.1 Fire Suppression		High		11.3, 11.4, and 11.5 Climate Change and Severe Weather		Low

Graphic Summary

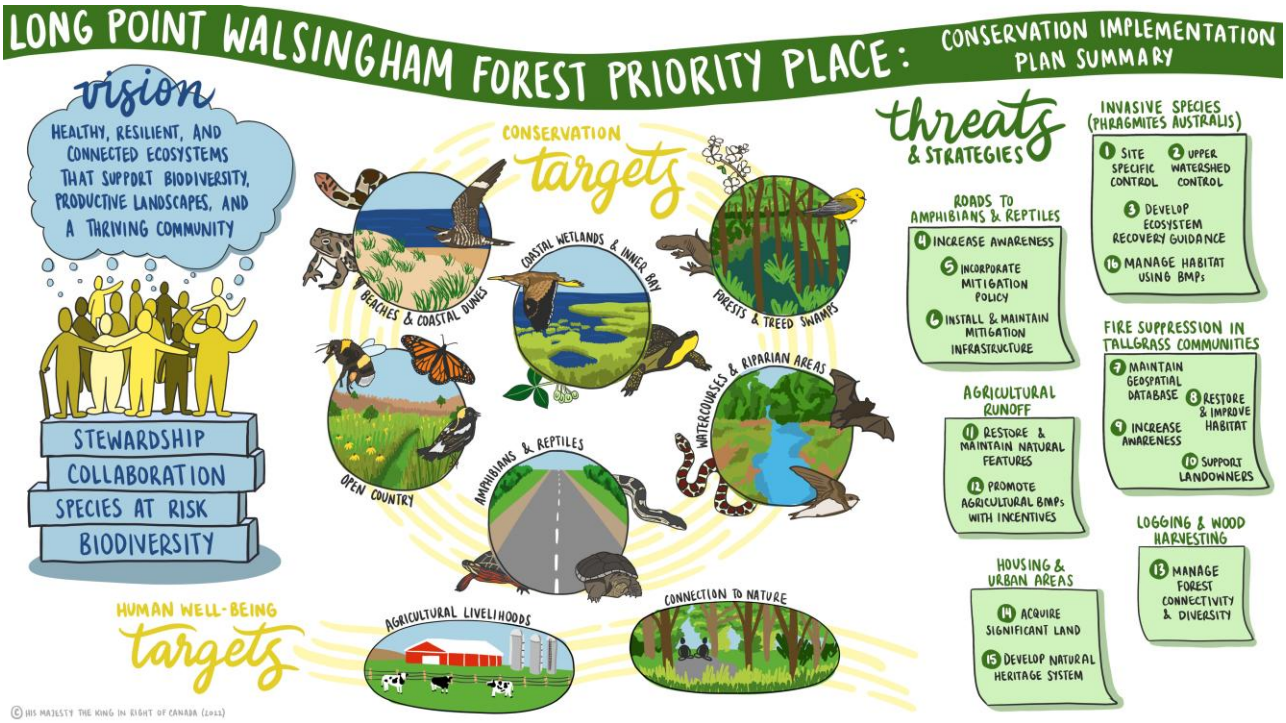


Illustration created by Emma Richard, 2023.

Situation Analysis

A situation analysis helps to create a common understanding of the project's context – describing the relationships between the biological environment and the social, economic, political, and institutional systems and drivers that affect the conservation targets. By understanding this context, the team is better informed to select strategies that will achieve their goals and objectives. A situation analysis helps answer two key questions: "What factors positively and negatively affect our targets?" and "Who are the key stakeholders linked to each of these factors?" The following situation model is a

visual diagram of the situation analysis. It illustrates key factors and causal chains that affect the conservation targets.

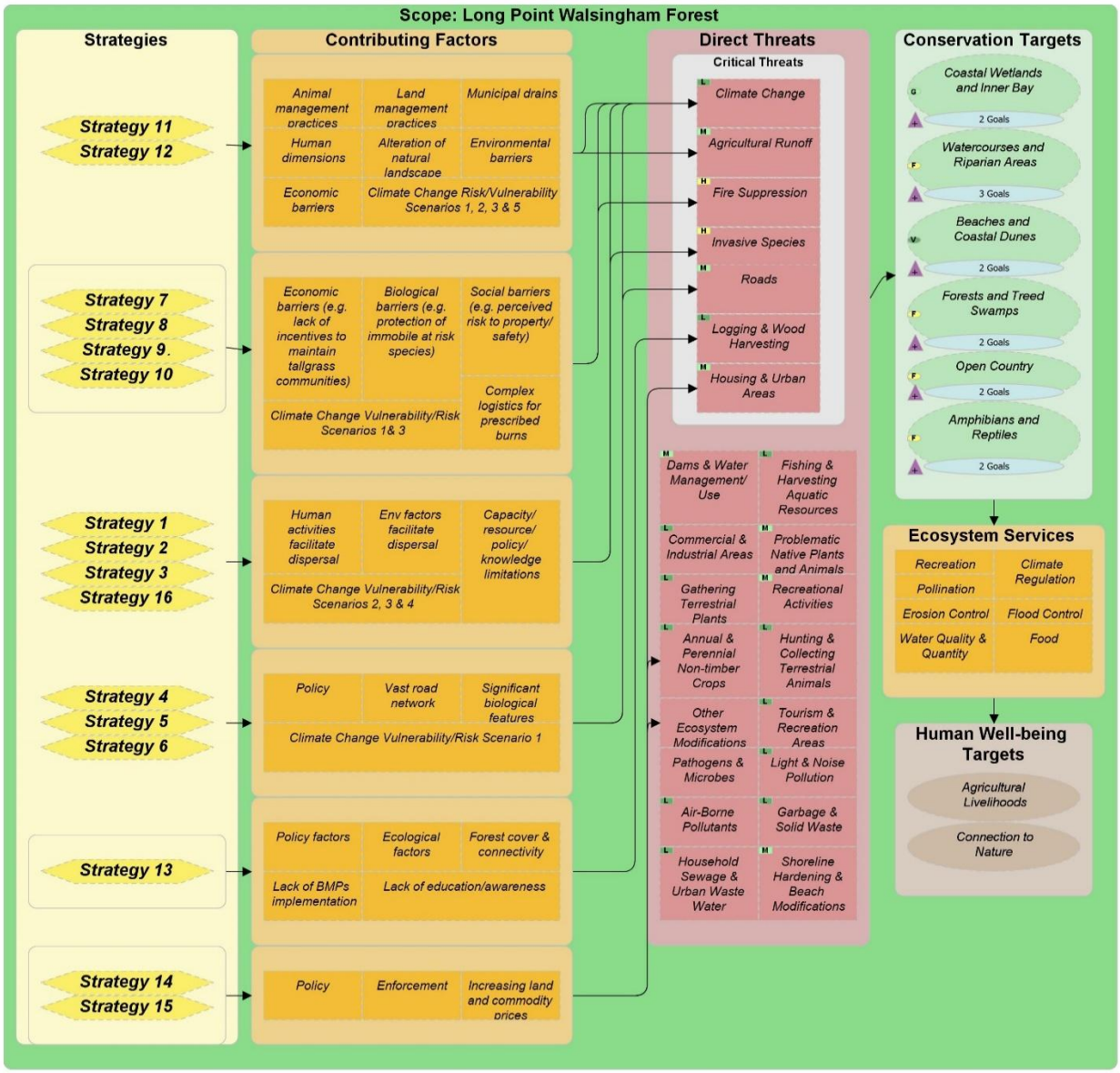


Figure 2. Situation Model for the Long Point Walsingham Forest Priority Place. Explanations for each Strategy can be found below.

Key Strategies

In order to achieve the conservation target goals identified above, the following strategies and actions should be implemented. The short-term objectives are identified in order to measure progress towards achieving the longer-term goals.

<u>STRATEGY 1:</u> Plan and conduct site specific control of *Phragmites australis* at Long Point coastal wetlands.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes
Direct Threat(s) Addressed: Invasive Species

Actions:

- Utilize an integrated pest management approach using a combination of management methods.
- Collaborate with regulatory agencies.
- Document re-establishment of phragmites in treated areas to inform follow-up treatment.
- Obtain necessary authorizations from regulatory agencies.
- Coordinate mapping to track and monitor efficacy.
- Conduct ecological monitoring.
- Prioritize areas for management.
- Explore best practices for alternative management methods and new/emerging techniques.
- Conduct outreach to key stakeholders to identify new partners and maintain existing support.
- Conduct First Nations engagement sessions to share information and knowledge.
- Support training of licensed contractors and local individuals.
- Apply for all required federal and provincial permits (e.g., SARA, CWA, DFO).
- Obtain contractors for implementation and monitoring.

Measures of Success:

Objectives	Indicators
1.0: Maintain *Phragmites australis* cover in the Long Point Coastal Wetlands to <10%.[1]	- # ha habitat improved - % Phragmites cover
1.1: A funded and coordinated Phragmites management program is implemented on the Long Point and Big Creek National Wildlife Areas annually from 2019-2025.	- Program established - # ha habitat improved - % change in Phragmites cover based on vegetation plots - % change in Phragmites cover based on satellite imagery - % phragmites cover
1.2: Evaluate native vegetation recovery capacity.	- % native cover

[1] Phragmites control in this area continues the work started by the Ontario Ministry of Natural Resources and the Nature Conservancy of Canada in 2016 under the Emergency Use Registration Permit.

	- Change in estimated # of Swamp Rose-Mallow stems before and after treatment - - % native seedlings
1.3: Evaluate effects of treatment on wetland biota habitat use.	- Relative abundance of turtles in treated vs. untreated areas - Change in habitat use of turtles before and after treatment - Richness of marsh birds in treated vs. untreated areas - Richness of anurans in treated vs. untreated areas - % conversion of Phragmites to fish habitat

<u>STRATEGY 2:</u> Plan and conduct *Phragmites australis* management within the Big Creek watershed to reduce spread into the Long Point coastal wetlands.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes, Watercourses and Riparian Areas, Forests & Treed Swamps
Direct Threat(s) Addressed: Invasive Species

Actions:

- Develop a watershed engagement plan for managing Phragmites.
- Mobilize landowners and the general public to monitor and manage Phragmites.
- Prioritize areas in the Big Creek watershed to treat.
- Provide training materials to heavy machinery operators and construction companies on clean equipment protocols.
- Work with Norfolk County to control Phragmites on roadside and drainage ditches.

Measures of Success:

Objectives	Indicators
2.0: By 2024, key *Phragmites australis* propagule sources in the Big Creek watershed are managed.	- # ha improved - # km improved - # landowners participating in management - # individuals trained to manage Phragmites

<u>STRATEGY 3:</u> Develop policy guidance that supports ecosystem restoration for Species at Risk.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes
Direct Threat(s) Addressed: Invasive Species

Actions:

- Ensure resource managers can make practical decision around urgent stewardship actions which halt the degradation of Critical Habitat quality and the wildlife it supports.
- Review permit applications with recognition of the urgent need and benefits to SAR as part of approved wildlife management plans.
- Conduct habitat restoration and improvement in SAR habitat.

Measures of Success:

Objectives	Indicators
3.0: *Phragmites australis* is effectively managed in SAR critical habitat at the Long Point and Big Creek National Wildlife Areas by 2022.	- # ha of SAR critical habitat improved

<u>STRATEGY 4:</u> Increase awareness on the threat of roads to wildlife and engage the local community in stewardship efforts.

Benefitting Conservation Target(s): Amphibians and Reptiles
Direct Threat(s) Addressed: Roads

Actions:

- Conduct local community stewardship events and workshops.
- Inform motorists when and how to modify behaviour.
- Install MTO wildlife mortality awareness signs at priority hotspots.
- Initiate a citizen science data collection program at potential future mitigation sites.

Measures of Success:

Objectives	Indicators
4.0**:** By 2020, citizen scientists are submitting road mortality observations in Norfolk County to the iNaturalist 'Citizen Science Data Collection in Norfolk County' project or the 'Wildlife on Roads in Ontario' project and	- # people (citizen scientists) conducting road mortality surveys on Norfolk County roads - # road mortality observations submitted to the iNaturalist 'Citizen Science Data Collection in Norfolk

observations/people contributing increases each year.	County' project or the 'Wildlife on Roads in Ontario' project (in Norfolk County) to inform future management
4.1: By 2023, 5 public engagement events on road ecology have occurred.	- # public engagement events - # attendees at each event
4.2: By 2023, at least 75% of the 30,277 Norfolk County households have been made aware of the threats of roads to reptiles and amphibians and the solutions to mitigate road mortality.	- # households and/or residents reached - # Ministry of Transportation Ontario wildlife mortality awareness signs posted at priority hotspots

<u>STRATEGY 5:</u> Incorporate road ecology mitigation policy and guidelines in the Norfolk County Official Plan and Road Asset Management Plan.

Benefitting Conservation Target(s): Amphibians and Reptiles
Direct Threat(s) Addressed: Roads

Actions:

- Norfolk County staff present a road ecology mitigation policy and guidelines report to council.
- Lunch and learn workshops are delivered to Norfolk County Council to provide support and education on wildlife/road mitigation.
- Norfolk County staff develop amendments to the Official Plan that integrate and support implementation of road ecology mitigation measures.
- Provide Norfolk County staff with the information and resources required to mitigate the threat of roads to wildlife.
- Identify and contact key Norfolk County staff to establish a partnership.
- Develop and distribute an electronic road ecology resource folder for Norfolk County staff which includes a road mortality hot spot map.
- Host a planning/road management/road ecology workshop for Norfolk County staff.

Measures of Success:

Objectives	Indicators
5.0: By 2025, Norfolk County council has reviewed at least 1 municipal staff recommended report about the threat of roads to SAR herpetofauna and road ecology mitigation principles and practices.	- # reports reviewed
5.1: At the next Official Plan review (2021), road ecology mitigation policy	- An updated Norfolk County Official Plan which includes road ecology mitigation policy amendments.

amendments are consolidated into the Official Plan.	

<u>STRATEGY 6:</u> Install and maintain dedicated road mitigation infrastructure for Species at Risk amphibians and reptiles.

Benefitting Conservation Target(s): Amphibians and Reptiles
Direct Threat(s) Addressed: Roads

Actions:

- Identify road projects scheduled to take place in SAR herpetofauna hotspots in Norfolk County.
- Consolidate all relative information (Natural Heritage System maps/land use schedules from the Official Plan, SAR herpetofauna hotspots, wildlife corridors, and scheduled road projects).
- For every current, planned and future road project, follow an assessment process to determine if the site is a wildlife corridor/crossing hotspot, and integrate standard and widely accepted mitigation measures efficiently and cost effectively as required.
- Plan and design roads using best management practices and existing guidance to avoid and minimize threats to SAR and the surrounding environment through any required processes.
- Install/implement temporary mitigation strategies at sites where permanent mitigation infrastructure is scheduled to be built.
- Maintain and upgrade wildlife mitigation infrastructure (i.e., fencing and culverts that were put in place for the purpose of mitigation).
- Maintain and upgrade road culverts that are considered wildlife corridors.
- Collaborate with scientists to rigorously and opportunistically collect wildlife/road interaction data.
- Augment mitigation with accessory conservation initiatives (e.g. habitat creation, and public awareness campaigns).
- Monitor effectiveness of mitigation infrastructure.

Measures of Success:

Objectives	Indicators
6.0: By 2021, Norfolk County road managers consider SAR herpetofauna habitat for all road projects that are scheduled.	- % road project proposals that include an assessment of the potential for herpetofauna road mortality - % projects include considerations for SAR herpetofauna
6.1: By 2025, a report with proposed road ecology amendments to the Norfolk County Official Plan is presented to council.	- Road ecology amendments to the Norfolk County Official Plan are completed

	- # presentations to Council on road ecology amendments
6.2: By 2026, Norfolk County plans, installs, monitors and maintains dedicated wildlife/road mitigation infrastructure at priority hotspots.	- # wildlife road mitigation infrastructure projects being maintained and/or implemented at priority SAR herpetofauna hotspots - # projects that are inspected/ repaired per year - # projects for which surveys are conducted to measure effectiveness in reducing road mortality

<u>STRATEGY 7:</u> Maintain a geospatial database for tallgrass habitat with information on management and monitoring activities.

Benefitting Conservation Target(s): Open Country
Direct Threat(s) Addressed: Fire Suppression in Tallgrass Communities

Actions:

- Compile all existing databases and mapping of Open Country habitats, including Ecological Land Classification (ELC) Community Class mapping and historical data into a shareable database.
- Identify priority areas for ground-truthing and those that have adequate data.
- Compile and track timeline of management activities associated with each site.
- Complete field work to apply ELC to Open Country habitats, complete botanical inventories, complete bird surveys, and document candidate areas for prescribed fire.
- Identify areas with fire-responsive invasive species and other invasive species pressures.
- Identify sites with sensitive non-mobile species.
- Prepare list of tallgrass indicator species by ELC polygon.
- Prepare list of rare or sensitive species (to fire or other management) by ELC polygon.
- Identify high-risk, no burn areas (e.g. buildings, fuel-loaded areas, etc.).

Measures of Success:

Objectives	Indicators
7.0: Develop a shareable database linked to the Long Point Walsingham Forest Shared Geospatial Conservation Database to track monitoring results with a focus on problematic invasive species,	- An updated geospatial database for tallgrass habitat is created

key tallgrass habitat indicator species, overall biodiversity, and management activities.	
7.1: By 2021, map (and ground-truth where necessary) tallgrass habitat.	- Tallgrass habitat is mapped in a geospatial database

<u>STRATEGY 8:</u> Implement a landscape-level Open Country habitat management plan to restore and maintain Open Country habitat on private and public lands.

Benefitting Conservation Target(s): Open Country
Direct Threat(s) Addressed: Fire Suppression in Tallgrass Communities

Actions:

- Identify key stakeholders (land managers, landowners, conservation organizations etc.) to form an implementation team.
- Identify a lead for the working group to organize communication among stakeholders, compile input/resources and coordinate the formulation and implementation of a management plan.
- Identify habitat creation targets for different Open Country community types.
- Develop a landscape-level Open Country habitat management plan which includes:
    - Description and mapping of existing Open Country communities, landscape-level habitat connectivity, and sites suitable for habitat restoration and improvement;
    - Recommendations for the proportion of different successional stages within the landscape (e.g., X number of ha should be maintained as tallgrass prairie, X number of ha should be maintained as savanna, etc.);
    - Identification of high-priority management needs (e.g., sites where canopy closure threatens Open Country communities, invasive species are prevalent, etc.);
    - Identification of site-specific habitat management objectives, prescriptions and cycles (e.g., Property A should be maintained as oak savanna through prescribed fire every 10-15 years);
    - Identification of existing natural and required fire breaks;
    - Identification of existing and desired habitat linkages;
    - Specific areas where Open Country habitat patches can be increased in overall size identified;
    - Recommendations for short and long-term monitoring; and
    - Recommendations for seed collection and assisted dispersal.
- Conduct prescribed burns and/or use other management techniques (e.g., mowing) at existing, improved and restored sites.
- Create/take advantage of natural fire breaks (e.g., vegetation gaps, removal of fuel, rivers etc.) when conducting prescribed burns.

- Update tracking databases (e.g., the Long Point Walsingham Forest Shared Geospatial Conservation Database) as required.
- Implement monitoring activities at restored and existing sites.

Measures of Success:

Objectives	Indicators
8.0: By 2023, a landscape level Open Country habitat management plan is being implemented.	- A landscape Open country habitat management plan is created for the LPWF Priority Place - # ha covered by a restoration plan
8.1: Improve and restore 250 ha of Open Country habitat on private and public lands by 2023 in a manner that focuses on creating new habitat patches >5 ha where possible.	- # projects funded - # ha habitat restored - # ha habitat improved - # new Open Country habitat patches created >5 ha - # ha of tallgrass habitat improved using prescribed burn or other methods for reducing woody encroachment and invasive species
8.2: Implement monitoring plans to assess the success of restoration efforts focused on Open Country habitat indicator species, SAR, and overall biodiversity.	- # sites with pre and post restoration data is collected - # sites where a systematic monitoring program has been implemented

<u>STRATEGY 9:</u> Increase public awareness about the importance of Open Country communities and the use of fire as a management tool in maintaining tallgrass habitat.

Benefitting Conservation Target(s): Open Country
Direct Threat(s) Addressed: Fire Suppression in Tallgrass Communities

Actions:

- Prepare and deliver public outreach materials (presentations, factsheets etc.) on the ecological importance of Tallgrass communities.
- Circulate written materials and offer fact-filled presentations at local agricultural or other community events, St. Williams Conservation Reserve, Turkey Point Provincial Park, and local schools.
- Prepare mail out packages for residents in close proximity to sites where prescribed burns are planned or anticipated.
- Prepare a prescribed burn notice template that can be shared with partners organizing prescribed burns.
- Engage members of the public as volunteers in the creation and maintenance of Open Country habitat.

- Provide incentives to allow members of the public to become RX100 certified and create a volunteer program to increase public involvement in prescribed burns.
- Engage knowledge resources such as Burn Bosses and the local fire departments to participate in public education and outreach.
- Offer tours to members of the public to visit Open Country habitats across the LPWF Priority Place.

Measures of Success:

Objectives	Indicators
9.0: By 2023, a public awareness campaign on the importance of Open Country communities, with an emphasis on fire as a management tool for tallgrass habitat is developed and executed with at least 2 public outreach events and 3 presentations given.	- # public outreach events - # presentations - # people engaged at events or presentations - # private landowners with Tallgrass communities engaged in targeted outreach

<u>STRATEGY 10:</u> Provide support and opportunities for landowners to manage, restore and maintain Open Country habitat on private lands.

Benefitting Conservation Target(s): Open Country
Direct Threat(s) Addressed: Fire Suppression in Tallgrass Communities

Actions:

- Identify opportunities to restore and maintain Open Country habitat on private lands.
- Develop site-specific management plans tailored to individual landowners managing Open Country communities.
- Present incentive opportunities to landowners which aim to restore and maintain Open Country habitat on private lands (government led incentive programs, seed give-a-ways, education on habitat creation and maintenance, etc.).
- Develop landowner materials to identify funding opportunities and ecological benefits of habitat restoration.
- Connect landowners to organizations such as Tallgrass Ontario, Nature Conservancy of Canada, Long Point Basin land Trust, ALUS Norfolk, and Pollinator Partnership.

Measures of Success:

Objectives	Indicators
10.0: By 2023, at least 60 ha (of the 250 ha Open Country restoration objective) is	- # ha habitat restored on private non-conservation lands

restored and improved on private, non-conservation lands.	- # ha habitat improved on private non-conservation lands
10.1: By 2023, at least 5 prescribed burns have occurred on private, non-conservation lands to maintain/improve tallgrass habitat.	- # prescribed burns conducted on private non-conservation lands - # ha habitat improved on private non-conservation lands through prescribed burns

<u>STRATEGY 11:</u> Restore, improve, and maintain natural features on agricultural lands.

Benefitting Conservation Target(s): Watercourses and Riparian Areas, Coastal Wetlands and Inner Bay, Open Country, Forests & Treed Swamps, Beaches and Coastal Dunes
Direct Threat(s) Addressed: Agricultural Runoff

Actions:

- Provide environmental financing to agricultural landowners for restoration, maintenance and improvement of natural features.
- Focus restoration and maintenance efforts on riparian buffers, grassland, hedgerows and wetlands.
- Plant drought tolerant species in vegetated buffers.

Measures of Success:

Objectives	Indicators
11.0: Protect habitat on agricultural land through conservation easement agreements to restore, improve and manage natural features.	- # ha secured
11.1: Restore and improve 200 ha of habitat on marginal agricultural land by 2023.	- # ha habitat restored - # km habitat restored - # ha improved - # km improved
11.2: Monitor and manage restored and improved habitat to assess the performance of buffer strips and natural features.	- # ha monitored - # ha managed
11.3: Manage and diversify the plant species composition of existing hedgerows and plant additional hectares to link woodlands by 2023.	- # ha hedgerows managed - # ha hedgerows planted

<u>STRATEGY 12:</u> Promote the adoption of agricultural BMPs through existing incentive programs.

Benefitting Conservation Target(s): Watercourses and Riparian Areas, Coastal Wetlands and Inner Bay, Open Country, Forests & Treed Swamps, Beaches and Coastal Dunes
Direct Threat(s) Addressed: Agricultural Runoff/Agriculture Sector

Actions:

- Deliver programs with extension personnel who can provide technical support on the ground and assist with funding securement for individual landowners.
- Work with landowners to determine what BMPs they are interested in and what may work well for them.
- Provide public tours of demonstration sites.
- Conduct targeted, door-to-door campaign.
- Promote Farmland Health Check-Up and LEADS/CAP program for funding.
- Coordinate with commodity groups.
- Support and enhance existing Agricultural BMP programs.
- Conduct outreach to certified crop advisors.
- Work with crop input providers to promote the use of cover crops.
- Target farmer associations for outreach.
- Provide economic incentives for planting cover crops.
- Provide a tax break for implementing cover crop BMPs.

Measures of Success:

Objectives	Indicators
12.0: Conduct at least 2 public tours of agricultural demonstration sites annually.	- # tours/year - # farmers attending tours/year - # expressions of interest in the ALUS program following the event
12.1: By 2023, financial incentives are sufficient to meet the demand.	- % qualifying funding applications that are funded
12.2: By 2023, landowners are made aware of available funding programs and BMPs.	- # individuals reached
12.3: By 2023, 50% of farms in Norfolk County maintain winter cover crops during the non-growing season.	- % farms in Norfolk County maintaining at least a single field of winter cover crops - # ha managed with winter cover crops

<u>STRATEGY 13:</u> Restore, improve and manage forest and treed swamp habitat with a focus on increasing connectivity and diversity.

Benefitting Conservation Target(s): Forests and Treed Swamps
Direct Threat(s) Addressed: Logging & wood harvesting, Invasive species, Recreational activities, Climate change

Actions:

- Develop a model to identify areas of low forest connectivity.
- Develop, promote, implement and monitor Best Management Practices (BMP) for species at risk and the forest floor.
- Distribute and develop educational materials about invasive species and tree diseases.
- Engage landowners and land managers to follow BMPs where applicable.
- Promote and develop incentive programs for improving forest condition, size and connectivity.
- Monitor select sites to determine if roadside dumping has been reduced.
- Monitor water levels within treed swamps.
- Determine effects of forestry on breeding birds.
- Give expert advice at Norfolk County Council meetings on tree-cutting by-laws.
- Implement a tree planting program on private lands.

Measures of Success:

Objectives	Indicators
13.0: By 2022, a model is created to identify areas with low forest connectivity.	- # ha identified as area with low forest connectivity
13.1: By 2023, landowners and land managers are engaged in forest management outreach regarding BMPs and incentive programs.	- # landowners implementing BMPs - # land managers implementing BMPs - # landowners and land managers engaged in BMP outreach - # ha habitat managed based on BMPs - # ha improved - # ha restored - # trees planted to increase forest cover

<u>STRATEGY 14:</u> Acquire significant land through fee simple purchases and conservation easements.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes, Open Country, Watercourses and Riparian Areas, and Forests and Treed Swamps

Direct Threat(s) Addressed: Housing and Urban Areas, Annual and Perennial Non-Timber Crops, Other Ecosystem Modifications

Actions:

- Identify high priority areas for connectivity between protected areas.
- Determine land securement priorities of ecologically significant parcels.
- Secure sources of funding to support land acquisition, conservation easements and the ongoing management/monitoring of these properties.
- Prepare communication materials to raise public awareness about the options for land securement.
    - Educate partner organizations about communicating land securement options to landowners.
    - Design and implement a targeted outreach program of the private landowners for high priority parcels.
- Request support from Norfolk County to hold title for properties that carry a tax burden.
- Prepare a land securement funding strategy that includes a variety of innovative sources including climate change mitigation/green infrastructure funding and funds from municipal development charges.
- Develop relationships with landowners of priority parcels.

Measures of Success:

Objectives	Indicators
14.0: By 2030, at least 30% of natural heritage systems are conserved through well-connected networks of protected areas.	- # ha acquired through fee-simple purchase or conservation easement agreement - # private landowners participating in voluntary conservation management agreements

<u>STRATEGY 15:</u> Identify and develop a "Natural Heritage System" and strategy for Norfolk County.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes, Open Country, Watercourses and Riparian Areas, and Forests and Treed Swamps
Direct Threat(s) Addressed: Housing and Urban Areas, Annual and Perennial Non-Timber Crops, Other Ecosystem Modifications

Actions:

- Involve the public and non-municipal agencies in the identification of natural heritage features and functions.
- Undertake natural heritage inventories including the identification of core natural heritage features and corridors.

- Determine appropriate setbacks and ecological buffers to the natural heritage systems.
- Implement natural heritage systems policies in zoning bylaws as well as in other municipal bylaws.
- Monitor the ecological health of the natural heritage system.
- Establish provisions in policies to grow and enhance the secured and environmentally managed portion of the natural heritage system through conservation easements, stewardship agreements or acquisitions through severances.
- Promote opportunities to cultivate the support of the agricultural community for natural heritage systems protection.
- Explore methods of biodiversity offsetting on a net gain basis.
- Provide financial incentives for natural heritage protection by private landowners.

Measures of Success:

Objectives	Indicators
15.0: By 2025, a natural heritage system is developed and implemented by Norfolk County.	- Existing natural heritage features delineated - Official Plan recognizes and provides protection to natural heritage features

<u>STRATEGY 16:</u> Manage invasive plants in conservation lands and adjacent roadsides using best management practices.

Benefitting Conservation Target(s): Coastal Wetlands and Inner Bay, Beaches and Coastal Dunes, Open Country, Watercourses and Riparian Areas, and Forests and Treed Swamps
Direct Threat(s) Addressed: Invasive Species

Actions:

- Document and report management techniques used and outcomes achieved to prioritize follow-up control.
- Collate data and prioritize control efforts.
- Create an Invasive Species Stewardship Team.
- Eradicate non-native plants from Beaches and Coastal Dunes.
- Document and report species and hectares managed.
- Work with Norfolk Country and Ministry of Transportation Ontario to control invasive species on roadsides.

Measures of Success:

Objectives	Indicators
16.0: Invasive plants become rare or absent (0-10% cover) in conservation areas by 2023.	- # hectares managed - # hectares improved
16.1: Invasive roadside plants become rare or absent (0-10% cover) adjacent to conservation lands and other strategic areas by 2023.	- # km managed - # km improved

Monitoring Plan and Reporting on Progress

Monitoring and measuring the effectiveness of conservation action is central to good adaptive management. The CIP will apply three types of monitoring:

1. Status monitoring: tracking the viability of the conservation targets and achievement of long-term goals.
2. Effectiveness monitoring: tracking whether strategies are having their intended impacts through the achievement of objectives and reduction in threats.
3. Project results monitoring: tracking the immediate outputs of the projects implementing the CIP.

The Long Point Walsingham Forest Priority Place CIP provides an overview of the monitoring plan and the information being tracked. Progress on the implementation of the CIP will be reported on annually. Visit the Priority Place website for more information.

Appendix 1. Nested Species at Risk Targets in Long Point Walsingham Forest

The species listed below include the species at risk that have been identified for each conservation target. These are the species that may benefit from efforts to conserve and improve the conservation targets, although the implementation of strategies is subject to appropriations, priorities, and budgetary constraints of the participating jurisdictions and organizations.

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Acadian Flycatcher	*Empidonax virescens*	Birds	Endangered	Endangered	Endangered	Forests and Treed Swamps Watercourses and Riparian Areas
American Badger jacksoni subspecies	*Taxidea taxus jacksoni*	Mammals	Endangered	Endangered	Endangered	Open Country
American Bumble Bee	*Bombus pensylvanicus*	Arthropods	Special Concern	Special Concern	No Status	Open Country
American Chestnut	*Castanea dentata*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps
American Ginseng	*Panax quinquefolius*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps
American Water-willow	*Justicia americana*	Vascular Plants	Threatened	Threatened	Threatened	Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Bald Eagle	*Haliaeetus leucocephalus*	Birds	Not at Risk	No Status	Special Concern	Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Bank Swallow	*Riparia riparia*	Birds	Threatened	Threatened	Threatened	Coastal Wetlands and Inner Bay Open Country Watercourses and Riparian Areas
Barn Owl (Eastern population)	*Tyto alba*	Birds	Endangered	Endangered	Endangered	Coastal Wetlands and Inner Bay Open Country
Barn Swallow	*Hirundo rustica*	Birds	Special Concern	Threatened	Threatened	Artificial Habitat Structures Coastal Wetlands and Inner Bay Open Country Watercourses and Riparian Areas
Bent Spike-rush (Great Lakes	*Eleocharis geniculata*	Vascular Plants	Endangered	Endangered	Endangered	Beaches and Coastal Dunes Coastal Wetlands and Inner Bay

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Plains population)						
Bird's-foot Violet	*Viola pedata*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps Open Country
Black Ash	*Fraxinus nigra*	Vascular Plants	Threatened	No Status	No Status	Forests and Treed Swamps
Black Tern	*Chlidonias niger*	Birds	Not at Risk	No Status	Special Concern	Coastal Wetlands and Inner Bay
Blanding's Turtle (Great Lakes / St. Lawrence population)	*Emydoidea blandingii*	Reptiles	Endangered	Endangered	Threatened	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Bobolink	*Dolichonyx oryzivorus*	Birds	Special Concern	Threatened	Threatened	Open Country
Broad Beech Fern	*Phegopteris hexagonoptera*	Vascular Plants	Special Concern	No status	Special Concern	Forests and Treed Swamps Watercourses and Riparian Areas
Butternut	*Juglans cinerea*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps Watercourses and Riparian Areas
Canada Warbler	*Cardellina canadensis*	Birds	Special Concern	Threatened	Special Concern	Forests and Treed Swamps Watercourses and Riparian Areas
Cerulean Warbler	*Setophaga cerulea*	Birds	Endangered	Endangered	Threatened	Forests and Treed Swamps
Chimney Swift	*Chaetura pelagica*	Birds	Threatened	Threatened	Threatened	Artificial Habitat Structures Coastal Wetlands and Inner Bay Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Colicroot	*Aletris farinosa*	Vascular Plants	Endangered	Endangered	Endangered	Open Country
Common Hoptree	*Ptelea trifoliata*	Vascular Plants	Special Concern	Special Concern	Special Concern	Beaches and Coastal Dunes Open Country
Common Nighthawk	*Chordeiles minor*	Birds	Special Concern	Special Concern	Special concern	Beaches and Coastal Dunes Coastal Wetlands and Inner Bay Forests and Treed Swamps Open Country

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Crooked-stem Aster	*Symphyotrichum prenanthoides*	Vascular Plants	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps Watercourses and Riparian Areas
Cucumber Tree	*Magnolia acuminata*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps
Downy Yellow False Foxglove	*Aureolaria virginica*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps Open Country
Eastern Flowering Dogwood	*Cornus florida*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps
Eastern Foxsnake (Carolinian population)	*Pantherophis vulpinus*	Reptiles	Threatened	Endangered	Endangered	Amphibians and Reptiles Artificial Habitat Structures Beaches and Coastal Dunes Coastal Wetlands and Inner Bay Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Eastern Hog-nosed Snake	*Heterodon platirhinos*	Reptiles	Threatened	Threatened	Threatened	Amphibians and Reptiles Beaches and Coastal Dunes Forests and Treed Swamps Open Country
Eastern Meadowlark	*Sturnella magna*	Birds	Threatened	Threatened	Threatened	Open Country
Eastern Milksnake	*Lampropeltis triangulum*	Reptiles	Special Concern	Special Concern	No Status	Amphibians and Reptiles Artificial Habitat Structures Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Eastern Musk Turtle	*Sternotherus odoratus*	Reptiles	Special Concern	Special Concern	Special Concern	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Eastern persius Duskywing	*Erynnis persius persius*	Arthropods	Endangered	Endangered	Extirpated	Open Country

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Eastern Ribbonsnake (Great Lakes population)	*Thamnophis sauritus*	Reptiles	Special Concern	Special Concern	Special Concern	Amphibians and Reptiles Coastal Wetlands and Inner Bay Forests and Treed Swamps Watercourses and Riparian Areas
Eastern Whip-poor-will	*Antrostomus vociferus*	Birds	Special Concern	Threatened	Threatened	Forests and Treed Swamps Open Country
Eastern Wood-pewee	*Contopus virens*	Birds	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps
False-foxglove Sun Moth	*Pyrrhia aurantiago*	Arthropods	Endangered	Endangered	No Status	Forests and Treed Swamps Open Country
Fern-leaved Yellow False Foxglove	*Aureolaria pedicularia*	Vascular Plants	Threatened	Threatened	Threatened	Forests and Treed Swamps Open Country
Fowler's Toad	*Anaxyrus fowleri*	Amphibians	Endangered	Endangered	Endangered	Amphibians and Reptiles Beaches and Coastal Dunes Coastal Wetlands and Inner Bay
Frosted Elfin	*Callophrys irus*	Arthropods	Extirpated	Extirpated	Extirpated	Open Country
Golden-winged Warbler	*Vermivora chrysoptera*	Birds	Threatened	Threatened	Special Concern	Forests and Treed Swamps Open Country
Grasshopper Sparrow, pratensis subspecies	*Ammodramus savannarum pratensis*	Birds	Special Concern	Special Concern	Special Concern	Open Country
Gray Ratsnake (Carolinian population)	*Pantherophis spiloides*	Reptiles	Endangered	Endangered	Endangered	Amphibians and Reptiles Artificial Habitat Structures Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Grey Fox	*Urocyon cinereoargenteus*	Mammals	Threatened	Threatened	Threatened	Forests and Treed Swamps Watercourses and Riparian Areas
Gypsy Cuckoo Bumble Bee	*Bombus bohemicus*	Arthropods	Endangered	Endangered	Endangered	Forests and Treed Swamps Open Country

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Harris's Sparrow	*Zonotrichia querula*	Birds	Special Concern	Special Concern	No status	Forests and Treed Swamps Watercourses and Riparian Areas
Henslow's Sparrow	*Ammodramus henslowii*	Birds	Endangered	Endangered	Endangered	Open Country
Horsetail Spike-rush	*Eleocharis equisetoides*	Vascular Plants	Endangered	Endangered	Endangered	Coastal Wetlands and Inner Bay
Jefferson Salamander	*Ambystoma jeffersonianum*	Amphibians	Endangered	Endangered	Endangered	Amphibians and Reptiles Forests and Treed Swamps
Karner Blue	*Plebejus samuelis*	Arthropods	Extirpated	Extirpated	Extirpated	Open Country
King Rail	*Rallus elegans*	Birds	Endangered	Endangered	Endangered	Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Large Whorled Pogonia	*Isotria verticillata*	Vascular Plants	Endangered	Endangered	Endangered	Forests and Treed Swamps
Laura's Clubtail	*Stylurus laurae*	Arthropods	Endangered	No Status	Endangered	Watercourses and Riparian Areas
Least Bittern	*Ixobrychus exilis*	Birds	Threatened	Threatened	Threatened	Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Little Brown Myotis	*Myotis lucifugus*	Mammals	Endangered	Endangered	Endangered	Aritifical Habitat Structures Forests and Treed Swamps Watercourses and Riparian Areas
Louisiana Waterthrush	*Parkesia motacilla*	Birds	Threatened	Threatened	Threatened	Coastal Wetlands and Inner Bay Forests and Treed Swamps Watercourses and Riparian Areas
Midland Painted Turtle	*Chrysemys picta marginata*	Reptiles	Special concern	Special concern	No Status	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Monarch	*Danaus plexippus*	Arthropods	Endangered	Endangered	Special Concern	Open Country
Mottled Duskywing (Great Lakes Plains population)	*Erynnis martialis*	Arthropods	Endangered	Endangered	Endangered	Open Country

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Nine-spotted Lady Beetle	*Coccinella novemnotata*	Arthropods	Endangered	Endangered	Endangered	Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Northern Map Turtle	*Graptemys geographica*	Reptiles	Special Concern	Special Concern	Special Concern	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Northern Myotis	*Myotis septentrionalis*	Mammals	Endangered	Endangered	Endangered	Forests and Treed Swamps Watercourses and Riparian Areas
Olive-sided Flycatcher	*Contopus cooperi*	Birds	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps Watercourses and Riparian Areas
Piping Plover circumcinctus subspecies	*Charadrius melodus circumcinctus*	Birds	Endangered	Endangered	Endangered	Beaches and Coastal Dunes
Prothonotary Warbler	*Protonotaria citrea*	Birds	Endangered	Endangered	Endangered	Coastal Wetlands and Inner Bay Forests and Treed Swamps Watercourses and Riparian Areas
Queensnake	*Regina septemvittata*	Reptiles	Endangered	Endangered	Endangered	Amphibians and Reptiles Artificial Habitat Structures Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Red-headed Woodpecker	*Melanerpes erythrocephalus*	Birds	Endangered	Endangered	Special Concern	Forests and Treed Swamps Open Country
Riverine Clubtail (Great Lakes Plains population)	*Stylurus amnicola*	Arthropods	Endangered	Endangered	Endangered	Watercourses and Riparian Areas
Round-leaved Greenbrier (Great Lakes population)	*Smilax rotundifolia*	Vascular Plants	Threatened	Threatened	Threatened	Forests and Treed Swamps
Rusty Blackbird	*Euphagus carolinus*	Birds	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps
Rusty-patched Bumble Bee	*Bombus affinis*	Arthropods	Endangered	Endangered	Endangered	Open Country

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Short-eared Owl	*Asio flammeus*	Birds	Threatened	Special Concern	Special Concern	Open Country
Small White Lady's-slipper	*Cypripedium candidum*	Vascular Plants	Threatened	Threatened	Endangered	Open Country
Smooth Yellow False Foxglove	*Aureolaria flava*	Vascular Plants	Threatened	Threatened	Threatened	Forests and Treed Swamps Open Country
Snapping Turtle	*Chelydra serpentina*	Reptiles	Special Concern	Special Concern	Special Concern	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Spiny Softshell	*Apalone spinifera*	Reptiles	Endangered	Endangered	Endangered	Amphibians and Reptiles Coastal Wetlands and Inner Bay Watercourses and Riparian Areas
Spotted Turtle	*Clemmys guttata*	Reptiles	Endangered	Endangered	Endangered	Amphibians and Reptiles Coastal Wetlands and Inner Bay Forest and Treed Swamps Watercourses and Riparian Areas
Spotted Wintergreen	*Chimaphila maculata*	Vascular Plants	Threatened	Threatened	Threatened	Forests and Treed Swamps
Swamp Rose-mallow	*Hibiscus moscheutos*	Vascular Plants	Special Concern	Special Concern	Special Concern	Coastal Wetlands and Inner Bay
Transverse Lady Beetle	*Coccinella transversogutt ata*	Arthropods	Special Concern	Special Concern	Endangered	Forests and Treed Swamps Open Country Watercourses and Riparian Areas
Tri-colored Bat	*Perimyotis subflavus*	Mammals	Endangered	Endangered	Endangered	Forests and Treed Swamps Watercourses and Riparian Areas
Unisexual Ambystoma Jefferson Salamander dependent population	*Ambystoma laterale – (2) jeffersonianum*	Amphibians	Endangered	Endangered	Endangered	Amphibians and Reptiles Forests and Treed Swamps
Virginia Goat's-rue	*Tephrosia virginiana*	Vascular Plants	Endangered	Endangered	Endangered	Open Country
Wood Thrush	*Hylocichla mustelina*	Birds	Threatened	Threatened	Special Concern	Forests and Treed Swamps

Common Name	Scientific Name	Taxon	Committee on the Status of Endangered Wildlife in Canada Status	Species at Risk Act Status	Endangered Species Act (Ontario)	Conservation Targets
Woodland Vole	*Microtus pinetorum*	Mammals	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps
Yellow-banded Bumble Bee	*Bombus terricola*	Arthropods	Special Concern	Special Concern	Special Concern	Forests and Treed Swamps Open Country
Yellow-breasted Chat virens subspecies	*Icteria virens virens*	Birds	Endangered	Endangered	Endangered	Open Country Watercourses and Riparian Areas