

Property Stewardship Guide, 2022

John Earle Chase Memorial Park



Partners in Conservation

We want to thank you for your participation in Kawartha Land Trust’s Partners in Conservation Initiative. Through this initiative we aim to support you in achieving your conservation goals to protect the land you love.

It is because of you and your neighbours, who have been caring for and enhancing your lands for decades, that the wetlands and uplands of the Kawarthas remain healthy and important spaces to our local ecology and communities.

It was our pleasure meeting you and visiting your land, and we are thrilled to provide you with this stewardship guide specific to your property. The information about the local landscape, the habitats and features on your land, and the land stewardship recommendations that you’ll find throughout have been prepared with you and your property in mind.

Land in the Kawarthas will continue to be under threat in the coming years. Local and regional growth projections such as those in the Growth Plan for the Greater Golden Horseshoe demonstrate that the development demand for land in the Kawartha region will be increasing. The expansion of the GTA and climate change will threaten the healthy ecosystems which we rely on.

We hope the information within will inspire you to continue stewarding your land while also deepening your understanding of your property’s significance in the area, and the part your land plays in global biodiversity.

When you take action to protect the biodiversity on your property, you are helping to mitigate the effects of climate change, limit the negative impact of these threats and protect the land you love for future generations.

On behalf of Kawartha Land Trust, your partner in conservation, we thank you for protecting and enhancing your property.

Sincerely,

Thom Unrau
Director of Community Conservation

Rachel Barrington
Partners in Conservation Coordinator
Kawartha Land Trust



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About Kawartha Land Trust

Kawartha Land Trust (KLT) is a dynamic land conservation charity in the Kawarthas with an impressive track record of growth. Our mission is to care for the lands entrusted to us and help others protect the land they love. We have achieved our successes through the work of our dedicated and growing team of donors, volunteers and supporters.

Our Mission

We strive to care for lands entrusted to us and help others protect the land they love in the Kawarthas.

Our Vision

We envision a future where the Kawartha Region is characterized by natural spaces and corridors that support healthy and representative ecosystems and landscapes. This deeply-connected landscape is founded on a mix of privately and publicly protected lands, private land stewardship and a supportive policy framework.

Our Guiding Principles

Conservation — We are committed to making conservation efforts permanent by protecting and caring for ecologically important lands and the connections between those lands.

Collaboration — We actively nurture relationships with volunteers, donors, staff, and community partners whose mandates and undertakings complement our own.

Transparency — We are transparent with our plans for the land we manage, with our finances, with our stewardship, and with the donations and volunteer contributions of our supporters.

Integrity — We are committed to leading with integrity and protecting and conserving land using evidence-based standards, using the best practices, and being accountable to our volunteers, donors, community partners, and the land on which we work.

Innovation — Recognizing that our work is long term, we value and encourage innovative ideas and solutions as we respond to changing social, political, and environmental circumstances.



KAWARTHA LAND TRUST
Protecting the land you love.

Habitat and Features on JECMP:

Deciduous Forest

The largest habitat type on JECMP is deciduous forest, although this can be broken down into several communities, according to the most dominant trees. Several communities have high conservation value, thanks to locally rare plants, use by Black Bears, presence of species at risk, and the presence of very old trees.

Habitat Profile
Total Forest Area: 212 acres
Type: Deciduous Forest

Who’s in the forest?

With a great diversity of forest communities comes a great diversity of plants and animals. Here is a selection of some of the species you’ll find throughout the deciduous forest of JECMP.

Dominant Species



Sugar Maple



Red Oak



Large-toothed Aspen

Other Species



Bitternut Hickory



Paper Birch



Basswood

Wood Frog

Identifiable by the dark mask under and above its eyes, the Wood Frog begins calling in the spring using a series of sharp quacks that sound similar to a duck. In the winter time, these frogs will bury themselves under the layers of decomposing leaf litter and



completely freeze until the spring when they thaw. Leaving the forest “messy” with leaves, sticks and fallen trees provides habitat for this species.

Ring-necked Snake

This is a small snake species, generally less than 50cm long. Ring-necked snakes are named for a distinct light-coloured band around the neck that contrasts with the dark, smooth scales of the back. They are harmless to humans, and dangerous only to their prey of



salamanders and invertebrates. This species is currently believed to be secure, though habitat loss and road mortality are constant threats.



What’s happening in the forest?

Caterpillar Host Plants

Some butterflies are very picky about where they lay their eggs, and will only lay their eggs on a single plant. Others, whose caterpillars can survive on a more varied diet, and less particular. Throughout the deciduous forest there are host plants for many butterfly species. Oaks and hickories are preferred by several species of hairstreak butterfly, and the Canadian Tiger Swallowtail seeks out poplars and ashes.

Invasive Species

Some invasive species have established populations in the deciduous forest. Three examples are Garlic Mustard, Tartarian Honeysuckle and Common Buckthorn. Garlic Mustard is an edible herb with white flowers that spreads quickly across the forest floor. Tartarian Honeysuckle is a woody shrub with hollow stalks and pink flowers. Common Buckthorn is a small tree with bunches of black berries.

Thicket

A small part of the deciduous forest could instead be classified as a thicket: a community where tree cover is less than 25% and shrub cover is greater than 25%. Here, small deciduous trees and shrubs like Common Apple, Hawthorn and Red-osier Dogwood are dominant.

Habitat and Features on JECMP:

Swamp

A swamp is a wetland with tree cover over 25%. There are two types of swamp on John Earl Chase Memorial Park: deciduous and mixed. Within these habitats, there are variable flooding regimes, with some sections drying up for part of the year and others remaining wet.

Habitat Profile
Total Habitat Area: 54 acres
Type:

Deciduous Swamp

Mixed Swamp

Who’s in the swamp?

Having a diversity of species in the swamp is evidence of a flourishing and healthy system. We would like to highlight the following species:

Deciduous Species



Black Ash

White Elm

Basswood

Yellow Birch


Coniferous Species




Eastern White Cedar

Balsam Fir

Snowshoe Hare
Snowshoe Hares tracks have been seen on JECMP, in the snow of the swamp. It is likely that the hare was traveling between patches of coniferous forest, the species’ preferred habitat. A major difference between Snowshoe Hare tracks and Eastern Cottontail Rabbit tracks is their size. Whereas the rear tracks of Snowshoe Hares can be as wide as 5” and as long as 6”, cottontail tracks do not exceed 1.75” in width and 3.25” in length.



White-tailed Deer
White-tailed Deer are named for the white underside of their tails, which become visible when they run. They are very agile creatures, able to jump over 2.5 metres high or over a distance of 9 metres. White-tailed Deer are currently listed as “Least Concern”, but their continued success depends on habitat being available to them. The mixed swamp of JECMP provides plenty of browsing and shelter in the winter.





What’s happening in the swamp?

Seasonal Flooding
Throughout the swamp you’ll find vernal pools: low areas that fill with water from winter melt and spring rainfall, and dry up by mid-summer. These shallow pools create predator-free habitats. Although they can’t contain fish, they are essential for spring breeding for certain species of frog (Spring Peeper and Wood Frog) and salamander (Eastern Red-backed Salamander). A dug pond at the edge of the deciduous swamp also offers breeding opportunity for other animals.

Species at Risk: Wood Thrush
The at-risk Wood Thrush is a species listed by the government’s Species at Risk Act as “Special Concern.” They are a forest interior bird and thrive in core forest habitats like those on JECMP. Their population has declined by 83% between 1970 and 2011. JECMP has a role to play in protecting this species by offering suitable habitat for the breeding season.

Decaying Logs
The deciduous and mixed swamp habitats have many rotting logs and fallen trees – and that’s a good thing! A thriving forest ecosystem has many natural habitat features that can seem almost messy. Under every log, an entire ecosystem exists for insects, amphibians and fungi that help to break down plant matter and restore the nutrients back to the land.

Habitat and Features on JECMP:

Cultural Meadows and Savannah

Cultural meadows and cultural savannah are similar habitat types. They are both a result of recent human activity, and are distinguished by the amount tree cover they have. While tree cover in a cultural meadow is less than 25%, in a cultural savannah it is 26-35%. Parts of cultural meadows of JECMP are growing in enough that they can almost be considered savannahs.

Habitat Profile
Total Habitat Area: 94 acres
Type:

Cultural Meadow

Cultural Savannah

Who’s in the meadows and savannah?

The following species speak to the valuable contribution these open areas of JECMP makes to our ecosystem:

Trees

Black CherryEastern White PineIronwood

Groundcover

Wild RoseWild BergamotBlack-eyed Susan

Eastern Phoebe
The Eastern Phoebe is a small, active songbird. Grey above and white beneath, these birds often raise the feathers on the top of their head into a peak and wag their tail up and down while perched. Phoebes make their nests in open woodland or on forest edges, but they make use of open areas to catch their insect prey. You will often find them around human dwellings, as phoebes have adapted to building nests on human structures.

Wild Turkey
Wild Turkeys are difficult to miss when they pick their way through open meadows in search of grass seeds and the occasional snail. They suffered drastic declines in the 19th and early 20th centuries, a result of hunting and habitat loss, with some subspecies being extirpated from certain states. Wild Turkeys have since regained and expanded their range, thanks in part to game managers transplanting wild-caught turkeys.



What’s happening in the meadows and savannah?

Mast
Mast species are trees and shrubs that bear fruits or nuts important for wildlife. Cultural meadows can sometimes become quite homogenous environments, supporting a limited number of mast species, especially if those trees were selectively removed from forests in the surrounding area. JECMP has a diversity of both soft mast (fruit) and hard mast (nuts and seeds) species, including Buffaloberry, Snowberry and Red Oak.

Turtle Nesting
One small section of the meadow community, at the east of the centre block, contains suitable habitat for Snapping Turtle and Midland Painted Turtle nesting. The ground here is sandy, and it’s very close to the deciduous swamp, with the cattail marsh just a bit further away.

Tallgrass Prairie Remnant
Two tallgrass prairie species have been recorded in the middle block of meadow as well as an edge of the savannah: Big Bluestem and Yellow Indian Grass. The tallgrass prairies is a rare ecosystem in Ontario, although tallgrass communities once covered 170 million acres of North America. It is an ecosystem that teems with wildlife, including birds, mammals and an incredible diversity of insects. However, the traits that make it so rich, like fertile soil, also make it ideal for agricultural development. The presence of tallgrass prairie species at JECMP make it candidate for tallgrass prairie restoration to bring this system back to the landscape.

Landscape Conservation Values

100% of JECMP is natural cover, which means it makes a huge contribution to the well-being of our environment. One way to quantify the contribution is through carbon sequestration, which can be roughly estimated according to forest and wetland cover:

Annual Forest Sequestration	Annual Wetland Sequestration	Total Sequestration
497 tons	146 tons	643 tons

This is the equivalent of taking approximately 108 cars off the road for one year!

Protected Land

Scientists suggest 30% of our natural landscape needs to be protected in the long term to retain ecosystem function. Canada has agreed to international biodiversity targets to conserve at least 25% of land and fresh water by 2025. Canada has also set a target of protecting 30% by 2030 – a goal which takes seriously the threat of climate change and biodiversity decline. Approximately 1500 acres of area in the map frame is protected by a legacy of government organizations like Ontario Parks and Otonabee Region Conservation Authority.

KLT is the only local organization actively protecting more land. Since 2010, KLT has protected 2441 acres of forest, 1367 acres of wetland, and 20,686 metres of shoreline. Recently, KLT has focused recently on the locally, regionally and globally significant landscape around Pigeon Lake and the surrounding area.

Each natural space, whether or not it is formally protected, plays an important role in the global ecosystem. When you care for your land and its ecological features, you are contributing to climate change resilience.

JECMP's Nearest KLT Neighbour

Big (Boyd/Chiminis) Island 1081 acres

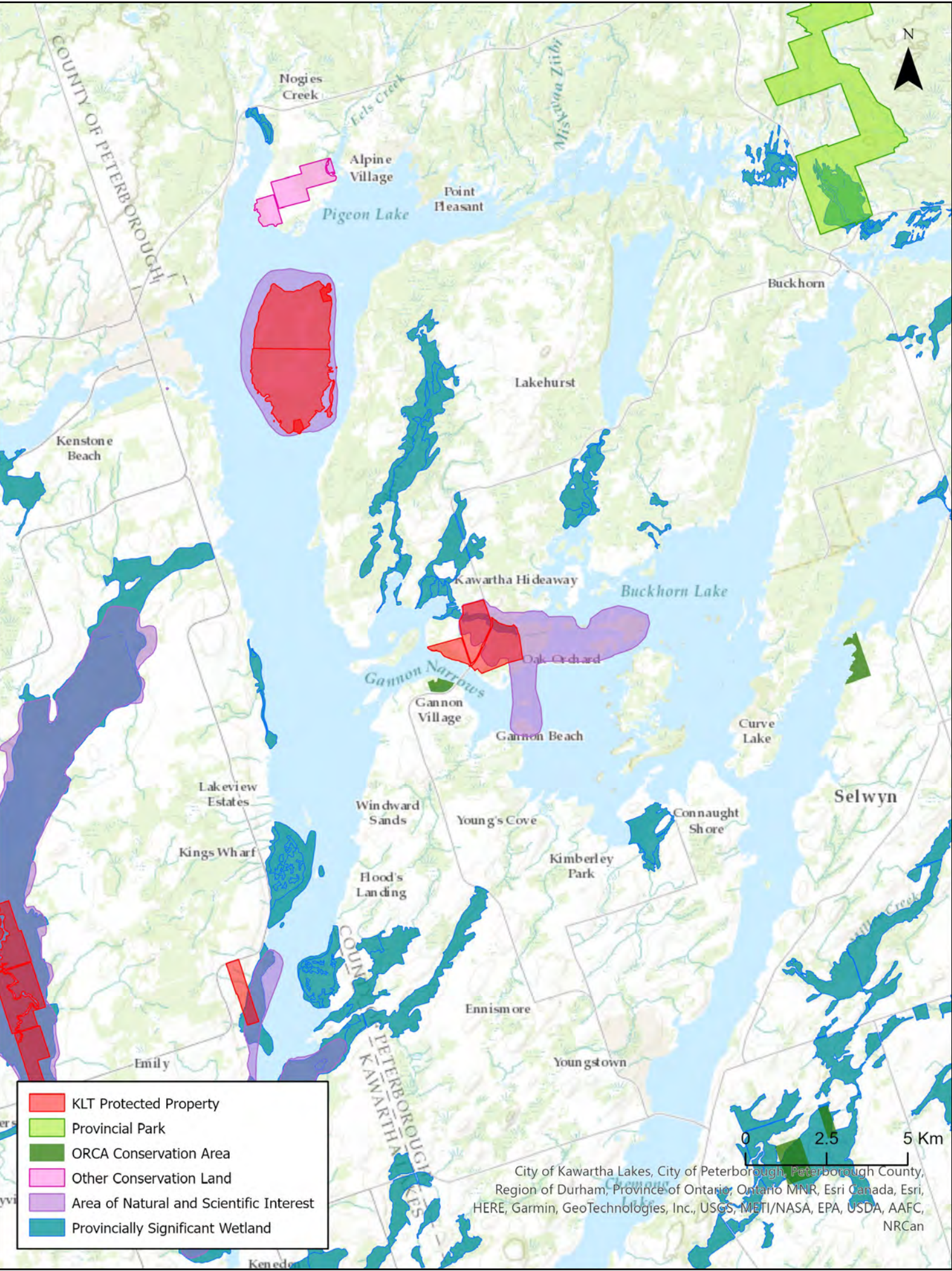
The largest undeveloped island in the Kawarthas, with a public trail system.

Provincially Significant Features

Scientists and legislation in the planning act have worked hard to identify the best parts of the landscape. In the map frame there are four nearby **Areas of Natural and Scientific Interest (ANSIs)**. This is an official designation applied to geological (“Earth Science”) or ecological (“Life Science”) features that are the best, or only features of this type on the landscape – or indeed the province.

Provincially Significant Wetlands (PSWs) are wetlands assessed using a scorecard that score enough points to provide better than average habitat and ecosystem services value. A PSW known as **Fulton’s Bay — Oak Orchard Wetland** extends onto JECMP. Among other services, this wetland provides a home to a large number of rare species, like the Lilypad Clubtail dragonfly. It is also a colonial waterbird nesting area. Fulton’s Bay — Oak Orchard Wetland is connected to other PSWs by water and land: many other PSWs border on Pigeon Lake, and Bear Creek Wetland (to the north-west) and Sandy Creek Wetland (to the north-east) are linked by surface water.

At a Glance: Provincially Significant Features in the Area		
Protection Type	Total Area in Map	Nearest Feature to Your Property
ANSI	8650 acres	Oak Orchard — Nichol Island <i>A Life Science site for which a recent survey yielded 427 plants and 254 animals.</i>
PSW	13,900 acres	Fulton’s Bay — Oak Orchard Wetland <i>A 350-acre PSW that is 11% marsh, 21% open water and 69% swamp.</i>



JECMP’s Place in the Landscape

Local Features and Connectivity

Natural Heritage systems have analyzed the landscape to identify what is left that can protect the precious remaining features. 186 acres of JECMP is considered deep habitat, which means it is uninterrupted natural cover, at least 100m wide. There are also three other classifications on the property.

Land Classifications	
47% (186 acres)	Deep habitat
15% (61 acres)	Slightly Fragmented
1% (4 acres)	Riparian Corridor

Deep habitat, corridors and fragmented habitat are classifications given by **Kawarthas Naturally Connected (KNC)**. KNC established a process to identify which areas of our landscape should be protected to maintain a natural heritage system. The process identifies the best forests, wetlands, natural streams, and opportunities for connections between those areas, as well as SAR habitat.

The KNC analysis takes into account **Baseline Connectivity**, and aims to identify areas that connect, or have the potential to connect, areas in the KNC preferred scenario. The baseline connectivity map, shown on the opposite page, illustrates JECMP amidst the broader landscape of developed areas, deep habitat (large, unfragmented natural areas) somewhat fragmented habitat, fragmented habitat hubs (areas that are isolated but still retain potential for connectivity), fragmented habitat with more severe isolation, and corridors between deep habitat.

There is a lot of development on the shores of Pigeon Lake near to JECMP, but there are also nearby areas of deep habitat that follow Bear Creek and Emily Creek. The south is especially patchy, but north of the lake is a much larger stretch of deep habitat.

Species at Risk

A species at risk (SAR) is a species that has been assessed by COSSARO (the Committee on the Status of Species at Risk in Ontario), and deemed to be in a concerning decline. Species are classified either as extinct, extirpated (no longer living in their original Ontario range, but still present elsewhere), endangered (facing imminent extirpation), threatened (likely to become endangered without action) or special concern (likely to become threatened without action). Species at risk are granted protection through the Endangered Species Act.



Six SAR have been identified on JECMP, and NHIC (Natural Heritage Information Centre) records show that at least eight more species live within a 2 km

Local Species at Risk	
Observed on JECMP	
Black Ash (<i>threatened</i>)	
Eastern Meadowlark (<i>threatened</i>)	
Eastern Wood-pewee (<i>special concern</i>)	
Monarch (<i>special concern</i>)	
Snapping turtle (<i>special concern</i>)	
Wood Thrush (<i>special concern</i>)	
Observed in the surrounding area	
Bald Eagle (<i>special concern</i>)	
Bobolink (<i>threatened</i>)	
Butternut (<i>endangered</i>)	
Canada Warbler (<i>threatened</i>)	
Eastern Ribbonsnake (<i>special concern</i>)	
Least Bittern (<i>threatened</i>)	
Midland Painted Turtle (<i>special concern</i>)	
Western Chorus Frog (<i>threatened</i>)	



Summary:

- ◆ A PSW extends onto JECMP. This property plays an important role in maintaining the quality of water that runs through it: natural forest prevents erosion, wetlands are excellent water filters, and both habitats promote groundwater recharge.
- ◆ 46% of JECMP is covered by deep habitat, which means it contributes to the persistence of many animal and plant species that favour interior forest.
- ◆ Thanks to the donation and management of JECMP, it can play a key role in the recovery of species in decline in Ontario.

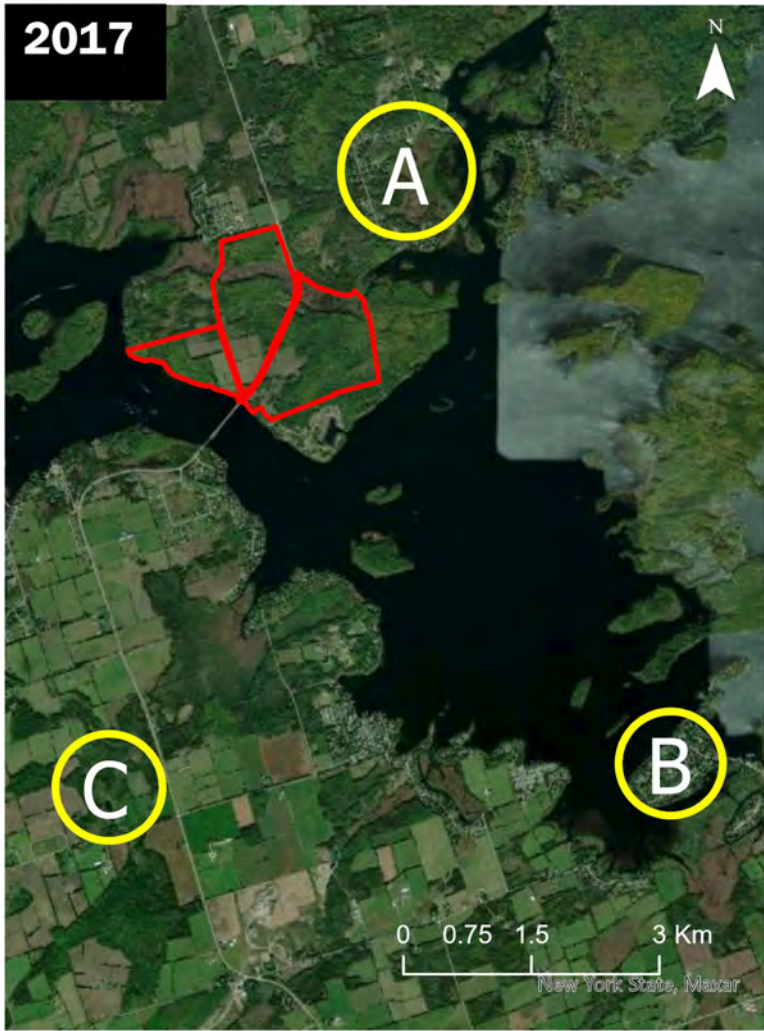
Changes on the Landscape

These images reflect the changes in the landscape over the past 63 years. Looking at both the past and present landscape values of any property can be beneficial in informing conservation needs. These maps show that some land has been lost to housing developments, but they also tell a story of nature on the rebound. Cleared areas have returned to forest and wetlands have been allowed to fill in over the years. The comparative images display how resilient nature can be, and how fast it recovers when left untouched.

What if we could have a map of the future? We must ask ourselves what we expect the land to look like in another 60 years. How can we keep the gains in habitat quality that we’ve made? How can we ensure a healthy future in the face of change? We have highlighted a few areas for you to take a closer look at your property past and present:

A - Wetland Naturalisation

Over the years, many cottagers have chosen to dredge their shoreline and remove vegetation in order to open up the water. However, in this area a wetland has been allowed to naturally fill in with aquatic plants that provide food and shelter to lots of our native wildlife.



B - Residential Development

The beauty of the area and its proximity to the GTA mean that land here is highly desirable: it’s not surprising that so much land, both agricultural and natural, has been developed for residential use.

C - Naturalisation

While in some places agricultural fields have been converted to residential, in other places they have been allowed to naturalise. Here, a forest stands on land that was once cleared.



Current Land Stewardship Initiatives in John Earle Chase Memorial Park

Several projects have taken place in JECMP to help enhance the natural features and increase the overall biodiversity across the landscape, as well as improve accessibility to nature. Below is a brief summary of the work that has been done to date and is projected for the future. The map at right illustrates some of these actions.

Public Trail Maintenance

There are over 4 km of public trail on JECMP. The trails receive regular attention to replace signage and remove fallen trees and branches. The following additional actions relate to public access.

- Monitor and undertake culvert repairs
- Maintain parking lots and barriers to ATV trespass
- Conduct annual lakefront garbage clean-up

Habitat Enhancement

In many instances, allowing areas to naturalise independently is an excellent course of action; in others, different strategies are considered. For example, instead of allowing succession to occur in the meadows of JECMP, they may be maintained as meadows to preserve habitat for the meadow-specialist species currently using them.

- Forest: regularly assess plants, especially those negatively affected by forest fragmentation. Plant trees and replace unsuccessfully planting as required.
- Meadow: mow open grassland to control succession. Install bluebird nest boxes at field edges. Conduct night surveys for Eastern whip-poor-wills.
- Savannah: plant tallgrass prairie species.

Invasive Species Management

There are several invasive species of concern living on JECMP, introduced intentionally or by accident (often on the boots of hikers). Some actions that have or will be taken to combat them include:

- Pull up Garlic Mustard
- Monitor the spread of European Common Reed (Phragmites) and cut down plants or remove seed heads
- Pull up Purple Loosestrife and plant Blue Vervain in the marsh



Protecting the Land You Love

Thank you for your commitment to conservation and restoration of your land. Your efforts are helping to protect the Kawarthas, mitigate climate change, and maintain clean water and protect biodiversity. Please don't hesitate to contact our team if you have any questions or would like further information.

Land Protection Options

Each year, we help individuals and families realize their vision for protecting the land they love in perpetuity. There are many different ways to protect your land and its features. These agreements are usually permanent and, as such must be developed carefully, considering your goals as a landowner as well as those of Kawartha Land Trust. If permanent conservation of your land is of interest, the following are some options that can be considered.

Conservation Easement Agreement

A Conservation Easement Agreement (CEA) is a permanent, legally binding agreement that is registered on the title of the property. You continue to own and use your land, you may sell it, or pass it on to your heirs, but there is a permanent legal agreement with KLT that is registered to the title of the property. The CEA permanently limits uses of the land to protect its conservation features. It can apply to all or only a portion of a property. Since these are agreements, they can be tailored to meet your needs, as well as to ensure the protection of the land's unique natural, scenic, or historical values.

Fee Simple Donation

The easiest of these options is a Fee Simple donation of the land. Title of a property or portions of a property are transferred from the landowner to KLT. KLT then becomes the owner of the land to care for and protect it in perpetuity.

Life Estate or Retained Interest

A landowner can also reserve a "Life Estate" or "Retained Interest" as part of a donation. This allows the landowner or a family member to continue to live on or use the property until their death or the death of the family member.

A Gift in Your Will

Some landowners choose to leave their land as a charitable gift in their will to KLT. If this is an avenue that you're considering, it is still important that you speak with us in advance so that we understand your wishes for your land.

Tax Benefits

There are capital gains and income tax benefits for gifts of land and conservation easement agreements that qualify as "Ecological Gifts" under the Canadian Income Tax Act. In all cases, we encourage you to seek independent legal and financial advice.

Protect it before it's gone.





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