



TREES AND TRAILS ADVISORY PANEL MEETING AGENDA

Held on Tuesday, August 19th, 2025, at 1:00 PM
at Town Hall – 30 King Street East (Council Chambers)

Video Conference Link: [Click Here](#)

1.	Call Meeting to Order
2.	Disclosure of Pecuniary Interest & General Nature Thereof
3.	Approval of Minutes (Adoption) – July 16, 2025
4.	Public Question/Comment (Only Addressing Reports on the Agenda)
5.	Disclosure of Additional Items
6.	Delegations
7.	Presentations by Staff (Others) – Staff Introduction – Charles Fromentin
8.	Correspondence
	1. Ontario Trails Council (OTC) Newsletter – 08 August 2025 OTC Trail News Link
9.	Unfinished Business
	1. Murray/Bickerton Gananoque Trails – Trailhead Sign
	2. Tree By-law Update – Heritage Tree Map
10.	New Business/Reports
11.	McLean Forest Sub-Committee
	1. Sub-Committee Update
	2. Property Management Plan
12.	Invasive Plants
	1. RFQ Update (Japanese Knotweed)

The Town invites and encourages people with disabilities to attend and voice their comments in relation to accessibility related reports. For those who are unable to attend, the Town encourages the use of the Customer Feedback Form found on the Accessibility Page on the Town's website.

13.	Trail Updates
	1. Signage and Maintenance Updates – Trailhead Sign and Distance Markers
	2. Trail Maps
14.	Discussion of Additional Items
15.	Next Regular Meeting – September _____, 2025, at 1:00 PM
16.	Questions from the Media
17.	Adjournment

TREES AND TRAILS ADVISORY PANEL MINUTES

On Wednesday, July 16, 2025 at 1:00 PM

Town Hall, 30 King Street East, Gananoque and Online via Webex

PANEL MEMBERS PRESENT		STAFF PRESENT
Chair:	Councillor David Osmond	Jeff Johnston, Manager of Parks and Recreation
Members:	Doug Bickerton	Lynsey Zufelt, Recording Secretary
	Gerry Brown	
	Terry Childs	
	Kate McLean	
	Calder Schweitzer	
	Alan Smith	
	Alison Timusk	
Regrets:	David Frid	
1.	Call Meeting to Order	
	Chair David Osmond called the meeting to order at 1:01 PM.	
2.	Disclosure of Pecuniary Interest & General Nature Thereof	
	<ul style="list-style-type: none">Member Calder Schweitzer declared a Conflict of Interest with matters pertaining to the Judith McLean Forest, as he is the Executive Director for the Thousand Islands Land Trust, which is the organization hired by Frontenac Arch Biosphere Network to complete the development of a Property Management Plan for the lands.	
3.	Adoption of Minutes	
	<p>Motion-TTAP-2025-010 – Adoption of Minutes – June 11, 2025 Moved By: Terry Childs Seconded By: Gerry Brown BE IT RESOLVED THAT THE TREES AND TRAILS ADVISORY PANEL HEREBY ADOPTS THE REGULAR TREES AND TRAILS ADVISORY PANEL MINUTES OF JUNE 11, 2025.</p> <p>CARRIED – UNANIMOUS</p>	

4.	Public Question / Comment – None
5.	Disclosure of Additional Items – None
6.	Delegations – None
7.	Presentations by Staff (Others) – None
8.	Correspondence
	1. Holly Evans, Cataraqui Region Conservation Authority – 2026 Invasive Phragmites Control <ul style="list-style-type: none"> It was generally agreed that Ms. Evans be invited to speak to the Panel at a future meeting.
9.	Unfinished Business
	1. Tree By-law Update – Heritage Tree List <ul style="list-style-type: none"> The Public Works Manager provided a written update which was shared with the Panel. The Panel reviewed the “Heritage Tree List” compiled and led by Member Alan Smith and considered the following. <p>Motion-TTAP-2025-011 – Heritage Tree List Moved By: Doug Bickerton Seconded By: Alan Smith BE IT RESOLVED THAT THE TREES AND TRAILS ADVISORY PANEL RECEIVE AND ACCEPT THE HERITAGE TREE LIST AS PRESENTED, AND ADD THE RECOMMENDED FIVE (5) TREES TO THE OFFICIAL HERITAGE TREE LIST, AND FURTHER, ADD THE LIST TO THE TOWN'S WEBSITE. CARRIED – UNANIMOUS</p>
10.	New Business/Reports
	1. Bikes on Trails <ul style="list-style-type: none"> Member Calder Schweitzer presented a verbal overview of the impact of bikes on trails and potential mitigation measures if necessary.
11.	McLean Forest Sub-Committee
	1. Sub-Committee Update <ul style="list-style-type: none"> It was generally agreed that Christine Grossutti, Conservation Project Manager, Frontenac Arch Biosphere Network, be invited to appear as a Delegation at the August 12, 2025 meeting of Council regarding the Panel's recommendations for the Judith McLean Forest Property.

12.	Invasive Plants
	1. RFQ Update (Japanese Knotweed) <ul style="list-style-type: none"> Manager Jeff Johnston provided the Panel with an update on the Japanese Knotweed RFQ.
	2. Rotary Invasive Plant Clean-Up – 18 July 2025 (9:00 AM to 12:00 PM)
**Manager Jeff Johnston left the meeting at 2:33 PM	
13.	Trail Updates
	1. Signage and Maintenance Updates – Trailhead Sign & Distance Markers <ul style="list-style-type: none"> Staff advised that a location for the Murray/Bickerton Trailhead sign is needed.
	2. Trail Maps <ul style="list-style-type: none"> Staff invited Panel Members to review the current Gananoque Trails Map brochure and to provide updates and feedback.
14.	Discussion of Additional Items – None
15.	Questions from the Media – None
16.	Next Meeting – Tuesday, August 19, 2025 @ 1:00 PM (Tentative)
17.	Adjournment
	<p>Motion-TTAP-2025-12 – Motion to Adjourn</p> <p>Moved by: Terry Childs</p> <p>BE IT RESOLVED THAT THE TREES AND TRAILS ADVISORY PANEL HEREBY ADJOURNS THE WEDNESDAY, JULY 16TH, 2025 MEETING AT 2:49 PM.</p> <p style="text-align: right;">CARRIED – UNANIMOUS</p>
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Councillor David Osmond, Chair </div> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Lynsey Zufelt, Recording Secretary </div> </div>	

**Frontenac Arch
Biosphere**



**THOUSAND ISLANDS
WATERSHED LAND TRUST**

Property Management Plan for McLean Memorial Forest



Date: August 5, 2025

Author: Maggie Stevenson (Prepared for the Frontenac Arch Biosphere Network)

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Climate Change Canada**

**Environnement et
Changement climatique Canada**



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Property Management Plan Summary

Biodiversity Values

Species at Risk	COSEWIC (Federal) Status	COSSARO (Provincial) Status
Midland Painted Turtle (<i>Chrysemys picta marginata</i>)	Special Concern	Not at RISK
Snapping Turtle (<i>Chelydra serpentina</i>)	Special Concern	Special Concern
Wood Thrush (<i>Hylocichla mustelina</i>)	Threatened	Special Concern
Eastern Wood Pewee (<i>Contopus virens</i>)	Special Concern	Special Concern
Black Ash (<i>Fraxinus nigra</i>)	Threatened	Endangered

Targets and Threats

Conservation Targets	<ul style="list-style-type: none">• Forest Ecosystems• Shallow Aquatic Wetland Ecosystems
Other Targets	<ul style="list-style-type: none">• Community Engagement & Education
Highest Threats	<ul style="list-style-type: none">• Invasive species

Objectives and Actions

Objective	Actions
To Protect & restore native forest and wetland ecosystems	<ul style="list-style-type: none">• Invasive species prevention through signage and boot brushes• Invasive species management• Property monitoring
To maintain property for public access	<ul style="list-style-type: none">• Trail maintenance & monitoring

1. Background

1.1 Purpose of the Plan

This property management plan was produced by the Thousand Islands Watershed Land Trust (TIWLT) contracted by the Frontenac Arch Biosphere Network in support of qualifying the land for recognition in the Canadian Protected and Conserved Areas Database. TIWLT produces similar plans to manage and monitor effectiveness of conservation actions on land trust properties. TIWLT's property management planning process uses elements from the "Open Standards for the Practice of Conservation", a standardized set of practices used by conservation-oriented groups to successfully implement conservation projects.

This management plan will provide information on the conservation values of the McLean Memorial Forest, as well as general recommendations/actions to manage the property and associated threats. Recommended stewardship actions will be focused on those which are feasible for volunteers, community members, and local partners to complete. Actions will be assigned a priority ranking to aid stewardship groups in planning of these tasks. Volunteers, community groups, or anyone completing work on the property can use this plan to learn and gain a better understanding of the property's features.

1.2 Land Use and Cultural Elements

The McLean Memorial Forest was donated by the McLean family to the Town of Gananoque in 2023 in Judith Scott McLean's memory. The property's historical land use includes agriculture, as well as conservation of habitat and ecosystems. Gananoque residents and visitors have enjoyed the property and nature over the years as part of Gananoque's trail system. The McLean family has provided information on the property's history and the intentions of the donation. Below includes text from the commemorative plaque found at the Arthur Street entrance:

"Ivan and Marguerite Scott purchased this land as a working farm from the Dempster family in 1950. Their daughter Judy inherited the farm in 1981. Judy's goal was to preserve a habitat for native plants and animals. In her memory, Judy's children, grandchildren and great grandchildren are proud to donate this property in perpetuity to the Town of Gananoque. Our hope is that the residents of Gananoque and its visitors will respect and enjoy the natural beauty of this property as much as Judy did. Please, respectfully enjoy the trails, animals, plants and lovely view of the mighty St. Lawrence River from "Turtle Rock"."

On the property, there are restrictive covenants which prohibit construction/development. The restrictive covenants state the following:

“1. No structure of any nature whatsoever shall be built upon the Lands nor shall the Lands to which these restrictions apply be developed in any fashion or subdivided for private ownership.

No development or construction of the Lands shall be undertaken which would detract from or prevent the Lands from qualifying for the Ministry of Natural Resources and Forestry’s managed forest program.

Nothing in the foregoing restrictions shall prevent any extension or expansion of municipal infrastructure in, over, upon, or through the Lands.”

2. Baseline Inventory Summary

A baseline survey for the property was completed by biologists of the Thousand Islands Watershed Land Trust on several days throughout July 2025. Assessments of the property’s biodiversity, trail conditions, and invasive species were completed. This information was used to inform potential management actions and recommendations.

As part of these surveys, all habitats of the property were visited, and a species list was compiled. The McLean Memorial Forest has a variety of important habitats, including a mix of coniferous and deciduous forests, as well as wetlands and shoreline habitat. These habitat types support a diversity of species, including species at risk birds, reptiles, and amphibians. The property’s biodiversity value is an asset to the Town of Gananoque and its residents to enjoy nature within city limits.

The highest threat to biodiversity noted during these surveys was the presence of invasive/non-native species. This includes Dog-strangling Vine (*Cynanchum rossicum*), Garlic Mustard (*Alliaria petiolate*), Periwinkle (*Vinca minor*), and others. In addition, the effects of Emerald Ash Borer infestation is evident with several infected Ash trees throughout the forest. This is common in the region but should be given consideration given the trail use and potential for hazardous trees that may affect this use. These invasive species populations were assessed based on their size, density, and abundance to determine the highest priorities for removal efforts.

Detailed information on these baseline conditions and associated management tasks will be provided throughout the remainder of this report.

2.1 Vegetation Communities

To define the vegetation communities of the property, the Ecological Land Classification (ELC) system was used. ELC divides landscapes into areas with similar ecological characteristics from climate, topography, and geology to specific vegetation and soil types. Using this classification system provides a standardized way for vegetation communities of the property to be mapped. The following ELC vegetation communities are found on the property:

White Pine Coniferous Plantation – The White Pine plantation is the largest vegetation community and covers approximately 80% of the forest area. White Pine (*Pinus strobus*) is dominant in the canopy, with White Ash (*Fraxinus americana*) and Sugar Maple (*Acer saccharum*) appearing occasionally in the subcanopy and understory layers. The ground layer is sparsely vegetated in areas which are heavily shaded by the canopy. Invasive species, like Honeysuckles (*Lonicera spp.*), Buckthorn (*Rhamnus cathartica*), and Dog-strangling Vine (*Vincetoxicum rossicum*) are found in the ground layer and understory in areas where light reaches the forest floor.

Sugar Maple-White Ash Deciduous Forest – Smaller deciduous forest areas are found between plantations. Sugar Maple and White Ash are dominant in the canopy and subcanopy layers with Black Cherry (*Prunus serotina*) being subdominant. Additional species in the subcanopy include Red Oak (*Quercus rubra*) and Basswood (*Tilia americana*). Native shrub species found in the understory layer include Red Raspberry (*Rubus idaeus*), Red Elderberry (*Sambucus racemosa*), and Gray Dogwood (*Cornus racemosa*). Numerous ferns and herbaceous plants are found within the ground layer. The signs of the invasive Emerald Ash Borer infestation are evident throughout this community. Several dead or dying Ash trees are present, causing an open canopy in many areas. In these areas, Invasive honeysuckles have created dense thickets in the understory due to the increased sunlight. This community will see changes to species composition as Ash trees continue to die. The Sugar Maple and Black Cherry in the subcanopy are likely to become the dominant species of this community as the successional process continues. In areas near White Pine plantations, there is a transition zone where some White Pine mixes with the deciduous species of this community. Soils are shallow over bedrock, and some areas exhibit rocky ridges, exposed rock and steep topography.

Ash Mineral Deciduous Swamp – A deciduous swamp is found along the western boundary of the property, continuing south of the boardwalk at the Arthur Street entrance. Dominant in the canopy are Black Ash (*Fraxinus nigra*), Green Ash (*Fraxinus pennsylvanica*), with Black Willow (*Salix nigra*) subdominant in areas closer to the river. Silver Maple (*Acer saccharinum*) and Red Maple (*Acer rubrum*) are additional species found in the canopy and subcanopy layers. The ground layer is heavily vegetated with grasses, sedges, and cattails. This community is also seeing the effects of Emerald Ash Borer. Flooding duration within these types of swamps are typically short, with the substrate being aerated by early to mid summer.

Duckweed Floating-leaved Shallow aquatic – Shallow aquatic wetlands are found along the north, western, and eastern boundaries. These wetlands are densely vegetated with Lesser Duckweed (*Lemna minor*) on the surface of the water. Water levels are variable and habitat features such as basking logs present.

Reed Canary Grass Meadow Marsh – At the Arthur Street entrance, there is a narrow meadow marsh community with the dominant species being Reed Canary Grass (*Phalaris arundinacea*). Flooding in these types of marshes are typically seasonal, with soils drying out in the summer months.

Refer to Map 3 in appendix A for further details.

2.2 SAR and their Designations

The below table outlines the species at risk that were observed on the property during the baseline surveys in 2025.

Species	COSEWIC (Federal) Status	COSSARO (Provincial) Status
Midland Painted Turtle (<i>Chrysemys picta marginata</i>)	Special Concern	Not at risk
Snapping Turtle (<i>Chelydra serpentina</i>)	Special Concern	Special Concern
Wood Thrush (<i>Hylocichla mustelina</i>)	Threatened	Special Concern
Eastern Wood Pewee (<i>Contopus virens</i>)	Special Concern	Special Concern
Black Ash (<i>Fraxinus nigra</i>)	Threatened	Endangered

The Natural Heritage Information Center (NHIC) has additional species at risk records for this area. These species have been recorded historically within 1 km of the McLean Memorial Forest. The below table summarizes these records.

Species	COSEWIC (Federal) Status	COSSARO (Provincial) Status
Golden-winged Warbler (<i>Vermivora chrysoptera</i>)	Threatened	Special Concern
Canada Warbler (<i>Cardellina canadensis</i>)	Threatened	Special Concern
Blandings Turtle (<i>Emydoidea blandingii</i>)	Endangered	Threatened

2.3 Invasives and their Extent

Several invasive species were located throughout the property, particularly in areas along the trail and throughout plantations. A total of 10 different invasive species were observed, each with varying levels of infestation and threat to biodiversity. Based on their levels of infestation and threat, each species is categorized from low to high priority for management. For the purposes of this management plan, species in the medium to high category will be the priority for management recommendations. In this section, detailed information on each species and their extent will be provided. Please see Section 4 of this report for specific recommendations and actions to manage each invasive species.

Dog-strangling Vine (*Vincetoxicum rossicum*):

Priority - High

Dog-strangling Vine, or DSV, can negatively affect forest regeneration by forming dense monoculture stands that outcompete native plants. This vine forms thick mats of vegetation, often wrapping around trees and other plants. Identification features include smooth leaves arranged opposite on the stem, maroon to pinkish 5-petalled flowers, and long bean shaped seed pods. Seeds are small, with feathery tufts, making them easily dispersed by wind. This invasive plant can grow in a variety of environments, from open areas to woodlands. Conifer plantations are especially vulnerable to DSV establishment with their open ground layer and filtered light conditions. DSV is in the milkweed family and can impact Monarch Butterfly populations. The butterflies mistakenly lay their eggs on DSV plants, rather than their host species of native milkweeds. The larvae hatched on DSV cannot complete their lifecycle and will die as a result.

A small patch of DSV was located along the trail in one of the plantation areas. The size of this infested area is approximately 3 m², with ~100 plants scattered throughout. The density of the patch is approximately 70% coverage of DSV compared to other species. Since this population is contained to a single area and has not completely taken over large sections of the forest, it is possible to eradicate the species with a multi-year management strategy.

Garlic Mustard (*Alliaria petiolate*):

Priority: High

Garlic Mustard is a biennial herbaceous plant which is known to be one of Ontario's "most aggressive forest invaders". Its first year, the plant produces a basal rosette of kidney-shaped leaves. In its second year, it has triangular, toothed leaves and clusters of small, white flowers. The seed pods are long and slender with numerous small black seeds inside. It outcompetes native plants and can become the dominant forest

understory plant. It is allelopathic, meaning it produces chemicals in the plant's roots which prevent growth of other plants. This can also affect the beneficial mycorrhizal fungi needed for other plants to grow. As a result, this invasive plant has the ability to alter an entire forest ecosystem.

Four populations of Garlic Mustard were located on the property at the time of the baseline surveys. 3 of these populations were located along the trail. These populations range in size and density. On average, there is between 200-400 plants at each of these populations, with a high-density coverage compared to native plants.

The fourth population is found along the laneway on the western side of the property. Garlic Mustard plants are found along this laneway in a 30m stretch on both sides. Both first and second year, flowering plants are found here.

Periwinkle (*Vinca minor*):

Priority: *Medium*

Periwinkle is an invasive ground cover that spreads rapidly from underground stolons. Once established, it creates dense mats which shade & outcompete native plants preventing forest regeneration. This plant grows as a vine along the ground, with dark green shiny leaves arranged opposite on the stem.

A population is found along the laneway on the western side of the property and beginning to spread to the adjacent forest. This population is approximately 10m x 2m in size. The population has a high density and is a dense monoculture of Periwinkle plants.

The following are low priority invasive species found on the property:

- Honeysuckles (*Lonicera spp.*)
- European Buckthorn (*Rhamnus cathartica*)
- Creeping Jenny (*Lysimachia nummularia*)
- Manitoba Maple (*Acer negundo*)
- Bittersweet Nightshade (*Solanum dulcamara*)
- Dames Rocket (*Hesperis matronalis*)
- Purple Loosestrife (*Lythrum salicaria*)

Of particular note are the extensive populations of invasive shrubs, like Honeysuckles and to a lesser extent, European Buckthorn. These species are common in many locations throughout the forest. These are large, dense monoculture populations which have reached levels which are not feasible to manage, as it would be labour intensive and likely ineffective.

2.4 Species List Information

The full list of species observed July 2025 can be found in appendix B. This is not meant to be a complete list for the property, as additional species are likely to be present in spring and fall seasons. As well, some cryptic species may be present on the property but were not observed during the baseline surveys. A total of 180 species were identified during the baseline surveys. Refer to appendix B for detailed information on species observations.

3 Conservation Priority Analysis

3.1 Conservation Target Identification & Analysis

In the development of a property management plan, one of the first steps after collecting baseline information is to identify conservation targets. This process defines key natural features or ecological processes which need to be protected or enhanced. Depending on the property or natural area, these can be broad, such as habitats, or a specific species where actions are needed to improve population health. These conservation targets will then inform management objectives and specific actions to complete.

For the purposes of the McLean Memorial Forest, the conservation targets are focused on broad habitats, as the actions will be focused on protection, restoration, and monitoring of these habitats. The first conservation target is the forests of the property. The largest forest type found on the property is the White Pine Coniferous Plantations. There are additional areas of the property containing Sugar-Maple Ash mixed forest. Within this conservation target, two species at risk birds (Wood Thrush & Eastern Wood-pewee) were heard during the baseline surveys. By protecting and enhancing the forest conservation target, these species will also benefit. This target will require restoration/enhancement as it contains several invasive species.

The second conservation target which will require protection is the shallow aquatic wetlands on the property. These wetlands are located around the northern, northwestern, and northeastern boundaries of the property. They are heavily vegetated with floating-leaved plants, with Lesser Duckweed being the dominant species. These wetlands are providing habitat for numerous species, including Snapping Turtles and Midland Painted Turtles. This target only require protection at this time, as there are no current invasive species or direct threats which will require management actions.

3.2 Other Targets

Other than the biological features which the conservation targets encompass, the property is also managed for public access and community engagement/education. The trails on the property provide opportunities for nature appreciation and recreation, contributing to the health and well-being of those who visit the property. The location of this property within city limits is ideal for community involvement in many aspects of property management. Several options/ideas to engage community members in management actions for the property will be mentioned as appropriate. These ideas are based on similar successes with land trusts, conservation authorities, and similar organizations.

3.3 Threats

A component of the “Open Standards for Conservation Practices” is a standardized direct threats classification. This outlines all potential threats which may negatively affect a property’s conservation targets. Based on the conservation targets identified, there are a few threats which could cause damage over the course of this management plan. The highest threat to the property is invasive species. Additional threats which could cause damage to the property include climate change and recreational activities. The below table summarizes the targets and threats, as well as their expected levels of damage to each target.

Threats/Targets	Forest Ecosystems	Shallow Aquatic Wetlands	Notes
Invasive Species	High	Low	This threat may increase as climate change continues and more pests, disease, insects, etc. move into the area.
Climate Change	Medium	Medium	Severe weather events, drought, flooding can be expected to affect the conservation targets in some way either directly or indirectly.
Recreational Activities	Low	Low	Minor issues, such as litter could result from trail use. No evidence of off-road recreational vehicles has been observed. However, this is a common threat to other conservation properties in the area and should be monitored.

3.3.1 Description of Levels of Damage

The level of damage to the conservation target that can reasonably be expected within 5 years under current circumstances (i.e., given the continuation of the existing situation).
Very High: The threat is likely to destroy or eliminate the conservation target over some part of the site.
High: The threat is likely to seriously degrade the conservation target over some part of the site.
Medium: The threat is likely to moderately degrade the conservation target over some part of the site.
Low: The threat is likely to only slightly impair the conservation target over some part of the site.

4. Management Goals, Objectives, and Actions

4.1 Management Goal

The overarching goal for the property is to restore and preserve the native ecosystems, and to maintain a trail system for nature appreciation and community engagement/education.

4.2 Objectives and Actions

The below table summarizes specific actions to improve each objective. Detailed information is provided in the corresponding sections.

Objective	Actions
4.2.1 To protect & restore native forest and wetland ecosystems	<ul style="list-style-type: none">• Invasive species prevention through installation of signage and boot brushes• Invasive Species Management• Property Monitoring
4.2.2 To maintain property for public access	<ul style="list-style-type: none">• Trail maintenance & monitoring

4.2.1 To protect & restore native forest and wetland ecosystems

4.2.1.1 Invasive Species Prevention:

The most effective component of any invasive species management plan is prevention/education. Preventing new species introductions will reduce future labour and costs related to invasive species management. The main pathway for introduction at the McLean Forest is through walking of the trail. Seeds of invasive plants can easily be picked up on boots elsewhere and brought to the property's natural areas. An additional pathway which may pose a threat is dumping of garden waste. Many invasive species can root in new areas after being pulled elsewhere. Non-native garden plants, such as Orpine (*Hylotelephium telephium*) were observed along the trail, suggesting past dumping.

Recommended actions:

- Installation of boot brush stations at both trail entrances
- Installation of educational signage about invasive species at trail entrances
- Ensure no dumping signs remain in place at both entrances
- Monitor for new invasive species or signs of dumping

4.2.1.2 Invasive Species Management:

Broadly, the goals of invasive species management are to either eradicate a species from a property or contain the species from spreading further. The ability to eradicate a species depends heavily on the population size and establishment, as well as the capacity available for management efforts. It is always best to start management efforts on smaller, satellite populations first and work towards any well-established large populations. Typically, the more established a population is, the more resources, cost, and labour will be required. Early detection and rapid response is an important component to invasive species management. If any new satellite populations, isolated plants, or species are discovered, these should be controlled first to get ahead of a large-scale invasion. Management along trails should be prioritized to prevent spread of seeds to new areas of the property.

The two highest priority species for control recommendations are Garlic Mustard and Dog-strangling Vine (DSV). These are highest priority due to their potential for ecological damage/threat and their level of infestation. Getting ahead of these two species will help reduce spread and biodiversity loss. In addition, these species have population sizes which are feasible for groups of volunteers/community members to control. Map 2 in Appendix A indicates the locations of each invasive species.

The below table outlines each species, the recommended control method, and timing of control. All invasive species management recommendations are based on manual control techniques, as these are actions which can be completed by volunteers or community members without requiring special permitting or licenses. These recommendations are based on the species Best Management Practices produced by the Ontario Invasive Plant Council.

Species	Timing	Method	Notes
Garlic Mustard Co-ordinates: N44.331679 W76.146917 N44.332618 W76.146207 N44.333231 W76.144927 N44.332477 W76.146754	Mid to late May prior to seed pods opening	Hand-pulling Plants have an 'S' shaped tap root. If broken, plants can re-sprout. Try to remove the entire tap root for best results.	Eradication is possible, but requires a multi-year plan to manage. Seeds can remain viable in the soil for several years. Populations along forest trail should be prioritized before moving on to the population along the laneway. This will prevent further spread via trail use.
DSV Co-ordinates: N44.333816 W76.145904	Mid July Prior to seed pods opening	Digging Try to remove the entire root crown, as plants can re-sprout from any remaining root crown or fragments.	Digging is the best manual control method to eradicate a population. Multi-year management is required. If resources are limited, picking seed pods or clipping plants is less labour intensive and can be effective in containing further spread, but will not eradicate the species.

Given the number of invasive species, it's important to prioritize management actions based on available capacity. For this reason, it's recommended to start with the above high priority species and work on medium priority species if time and resources allow or if capacity increases.

Species	Timing	Method	Notes
Periwinkle N44.332616 W76.145181	June	Hand-pulling/digging Prior to pulling, rake the area to help raise and loosen plant stolons. Care should be taken to remove all stems, stolons, and root nodes to prevent re-sprouting. If roots/stolons do not come out easily, use a shovel to assist in removal.	A thick layer of mulch applied after control will help slow any potential re-growth.

Community Engagement Opportunities:

Invasive Species management can be a physically demanding job. Having a dedicated plant pull with community groups, volunteers, or school groups makes this work easier, but also serves to educate members of the public on invasive species and the importance of preventing new species introductions. Garlic Mustard, Dog-strangling Vine, and Periwinkle are all candidates to organize a community pull for.

Garlic Mustard in particular provides an interesting opportunity for educational activities. The timing for control is ideal for assistance from elementary or high school classes to help with removal. Garlic Mustard is also an edible herb that can be used to make pesto and sauces. Partnership with local schools or community groups would provide opportunities for students to learn about invasive species, while also incorporating elements of cooking/hospitality classes. Conservation authorities and environmental groups in other regions of Ontario have had success with similar programs where students learn to cook with Garlic Mustard.

4.2.1.3 Property Monitoring:

Property monitoring is an important action to ensure long-term protection of natural areas. Regular monitoring visits and recording helps to track the health of ecosystems and alert to any changes or issues that may need attention. For example, monitoring can alert to early signs of disease within a forest. Monitoring also helps track changes to existing invasive species populations and alerts to new invasive species which will require attention.

In addition to monitoring the natural features and ecosystem health, there are restrictive covenants on the property which should be monitored for compliance. The restrictive covenants state the following:

“1. No structure of any nature whatsoever shall be built upon the Lands nor shall the Lands to which these restrictions apply be developed in any fashion or subdivided for private ownership.

No development or construction of the Lands shall be undertaken which would detract from or prevent the Lands from qualifying for the Ministry of Natural Resources and Forestry’s managed forest program.

Nothing in the foregoing restrictions shall prevent any extension or expansion of municipal infrastructure in, over, upon, or through the Lands.”

Property monitoring can be done by volunteers or community members who may walk the trail on a regular basis. A detailed monitoring form is provided in Appendix C. Volunteers can take this form with them when monitoring the property. Prior to monitoring, this property management plan should be reviewed to ensure volunteers are familiar with the property and the features identified for protection. It is also helpful to review past monitoring forms in case there were any issues identified previously that would require follow-up.

Recommended Monitoring Schedule: Once/season at minimum, but can be done more frequently if volunteers are on trails often

What to look for:

- Hazards (ex. Tree snags, broken glass, etc.)
- Trail conditions
- Condition of boardwalks or structures
- Plant and wildlife observations
- Signs of diseased trees
- Invasive Species
- Disturbances or issues (ex. erosion, vandalism, dumping, etc.)
- Unauthorized building or development

If any issues are identified, take photos, gps co-ordinates, notes and add to the monitoring form so you have a record of this. To collect gps co-ordinates you can use google or apple maps if a gps unit is unavailable.

4.2.2 To maintain property for public access

4.2.2.1 Trail Maintenance & Monitoring

With public use of the property, trail monitoring is an important action to help keep the trail safe and accessible for everyone to enjoy. Trail monitoring can be incorporated into the property monitoring outlined above. Important features to look for are included in the trail condition section of the monitoring form found in appendix C.

Specific to the trail, monitors should look for any hazards, like fallen trees, tree snags which pose a safety concern, broken glass, etc. Additionally, monitors should look for deteriorating conditions of boardwalks/bridges and make note of any feature that will need maintenance. Look for signs of erosion, soil loss, or rutting, as well as any signs of off-road vehicle use. Any litter can be picked up while monitoring the trail.

The established trails on the McLean Property are in good condition and allow an appropriate route through the property. Further work could be completed to enhance the trail towards the rock outlook over the St. Lawrence. This includes addition of signage and trail clearing/widening in some areas. Monitors should pay attention for any new, unauthorized trails or trampling of vegetation off existing trails.

Generally, the trail is in good condition and there are no imminent maintenance requirements as it pertains to safety of the trail. Over the course of this Property management plan, maintenance may be required for boardwalks, signage, tree removal, etc. as activities occur. Below are some considerations for maintenance activities that could occur if the need arises.

Recommended maintenance activities:

- Add signage along section towards St. Lawrence River
- Boardwalk/footbridge maintenance or updates
- Addition of low-impact boardwalks in any seasonally wet areas
- Tree removal/trail clearing

Community Engagement Opportunities:

Having a dedicated group of volunteer trail stewards or a “friends of” group is a great way to engage the community. These stewards would be the “eyes on the ground” to report any concerns or issues, keeping the property healthy and safe for others to enjoy. Volunteer stewards may also participate in minor trail maintenance, including clearing debris or fallen branches, picking up litter, as well as monitoring and removal of invasive species.

5 Management Plan Review

This Property Management Plan and associated actions/recommendations will be in place for 5 years. In 2030, this plan should be reviewed and assessed. An updated plan may need to be produced if there are changes to the property or additional management requirements during this time period.

6 References

Conservation Measures Partnership. (2020). Open Standards for the Practice of Conservation V. 4. <https://www.conservationstandards.org/wp-content/uploads/sites/3/2020/12/CMP-Open-Standards-for-the-Practice-of-Conservation-v4.0-English.pdf>

“Natural Heritage Information Centre: Make a Map.” Ontario Ministry of Natural Resources and Forestry. Species at Risk data in 1km grids: https://www.lioapplications.lrc.gov.on.ca/Natural_Heritage/index.html?viewer=Natural_Heritage.Natural_Heritage&locale=en-CA

Ontario Invasive Plant Council. (2012). Invasive Garlic Mustard (*Alliaria petiolata*) Best Management Practices in Ontario. https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/OIPC_BMP_GarlicMustard.pdf

Ontario Invasive Plant Council. (2025). Best Management Practices. <https://www.ontarioinvasiveplants.ca/resources/best-management-practices/>

7 Appendices

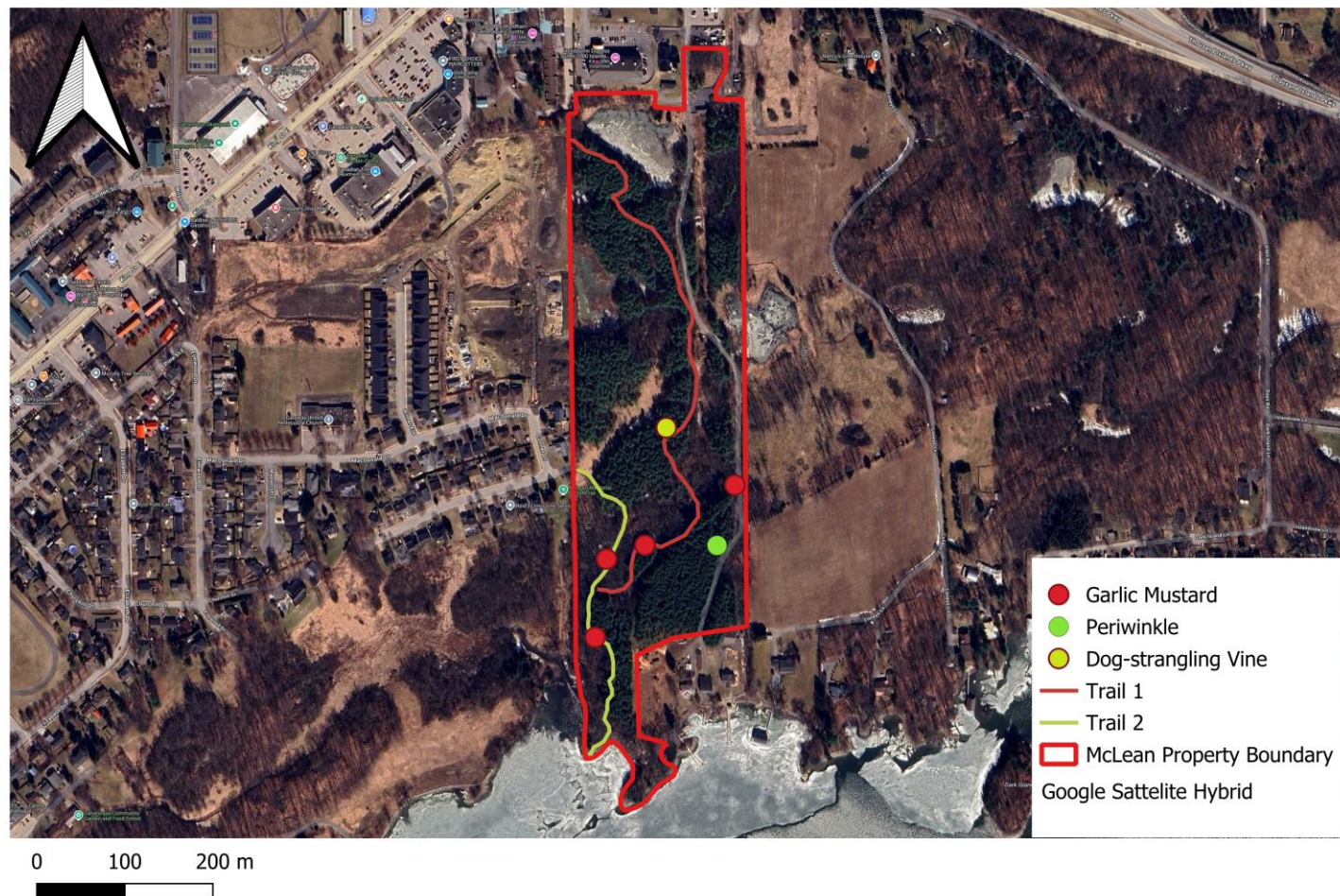
Appendix A - Maps

McLean Memorial Forest



Map 1. McLean Memorial Forest Trails.

McLean Memorial Forest - Invasive Species



Map 2. Invasive Species Locations.

McLean Memorial Forest - ELC



Map 3. ELC Vegetation Communities.

Appendix B – Species List

Category	Common Name	Scientific Name
Reptiles & Amphibians	American Bullfrog	<i>Rana catesbeiana</i>
	Green Frog	<i>Lithobates clamitans</i>
	Midland Painted Turtle	<i>Chrysemys picta marginata</i>
	Snapping Turtle	<i>Chelydra serpentina</i>
	Mink Frog	<i>Lithobates septentrionalis</i>
	Leopard Frog	<i>Lithobates pipiens</i>
	Pickerel Frog	<i>Lithobates palustris</i>
	Common Gartersnake	<i>Thamnophis sirtalis</i>
Birds	Scarlet Tanager	<i>Piranga olivacea</i>
	Ring-billed Gull	<i>Larus delawarensis</i>
	Green Heron	<i>Butorides virescens</i>
	Mute Swan	<i>Cygnus olor</i>
	Cedar Waxwing	<i>Bombycilla cedrorum</i>
	Yellow Warbler	<i>Setophaga petechia</i>
	Common Yellowthroat	<i>Geothlypis trichas</i>
	Swamp Sparrow	<i>Melospiza georgiana</i>
	Pileated Woodpecker	<i>Dryocopus pileatus</i>
	Trumpeter Swan	<i>Cygnus buccinator</i>
	Great Blue Heron	<i>Ardea herodias</i>
	Great Crested Flycatcher	<i>Myiarchus crinitus</i>
	Eastern Towhee	<i>Pipilo erythrophthalmus</i>
	Black-capped Chickadee	<i>Poecile atricapillus</i>
	Red-winged Blackbird	<i>Agelaius phoeniceus</i>
	Hairy Woodpecker	<i>Dryobates villosus</i>
	Northern Cardinal	<i>Cardinalis cardinalis</i>
	Tufted Titmouse	<i>Baeolophus bicolor</i>
	Song Sparrow	<i>Melospiza melodia</i>
	White Breasted Nuthatch	<i>Sitta carolinensis</i>
	Tree Swallow	<i>Tachycineta bicolor</i>
	American Crow	<i>Corvus brachyrhynchos</i>
	American Robin	<i>Turdus migratorius</i>
	Red-eyed Vireo	<i>Vireo olivaceus</i>
	American Goldfinch	<i>Spinus tristis</i>
	Pine Warbler	<i>Setophaga pinus</i>
	House Wren	<i>Troglodytes aedon</i>

	American Redstart	<i>Setophaga ruticilla</i>
	Wood Thrush	<i>Hylocichla mustelina</i>
	Eastern Wood Pewee	<i>Contopus virens</i>
	Carolina Wren	<i>Thryothorus ludovicianus</i>
	Eastern Kingbird	<i>Tyrannus tyrannus</i>
Mammals	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>
	Red Squirrel	<i>Tamiasciurus hudsonicus</i>
	Raccoon	<i>Procyon lotor</i>
	Eastern Cottontail	<i>Sylvilagus floridanus</i>)
	Chipmunk	<i>Tamias striatus</i>
Invertebrates	Chalk-fronted Corporal	<i>Ladona julia</i>
	Hickory Tussock Moth	<i>Lonomia obliqua</i>
	Hobom Monk Skipper	<i>Lerema accius</i>
	Common Whitetail	<i>Plathemis lydia</i>
	Milipede	<i>Eurymerodesmus</i> spp.
	Inchworm	<i>Geometridae</i> spp.
	Black Swallowtail	<i>Papilio polyxenes</i>
	Common Eastern Bumblebee	<i>Bombus impatiens</i>
Trees, Shrubs and Vines	Purple-flowered Raspberry	<i>Rubus odoratus</i>
	Shagbark Hickory	<i>Carya ovata</i>
	Basswood	<i>Tilia americana</i>
	White Pine	<i>Pinus strobus</i>
	White Ash	<i>Fraxinus americana</i>
	Black Walnut	<i>Juglans nigra</i>
	White Oak	<i>Quercus alba</i>
	Spreading Dogbane	<i>Apocynum androsaemifolium</i>
	Black Cherry	<i>Prunus serotina</i>
	Manitoba Maple	<i>Acer negundo</i>
	Virginia Creeper	<i>Parthenocissus quinquefolia</i>
	Prickly Gooseberry	<i>Ribes cynosbati</i>
	White Spruce	<i>Picea glauca</i>
	American Elm	<i>Ulmus americana</i>
	Gray Dogwood	<i>Cornus racemosa</i> .
	Riverbank Grape	<i>Vitis riparia</i>
	Sugar Maple	<i>Acer saccharum</i>
	Nannyberry	<i>Viburnum lentago</i>
	European Buckthorn	<i>Rhamnus cathartica</i>
	Black Raspberry	<i>Rubus occidentalis</i>
	Staghorn Sumac	<i>Rhus typhina</i>
	Morrow's Honeysuckle	<i>Lonicera morrowii</i>
	Tatarian Honeysuckle	<i>Lonicera tatarica</i>

	Bittersweet Nightshade	<i>Solanum dulcamara</i>
	Red-osier Dogwood	<i>Cornus sericea</i>
	Red Raspberry	<i>Rubus idaeus</i>
	Red Oak	<i>Quercus rubra</i>
	Green Ash	<i>Fraxinus pennsylvanica</i>
	Black Willow	<i>Salix nigra</i>
	Bitternut Hickory	<i>Carya cordiformis</i>
	Maple-leaved Viburnum	<i>Viburnum acerifolium</i>
	Willow sp.	<i>Salix sp.</i>
	Silver Maple	<i>Acer saccharinum</i>
	Black Ash	<i>Fraxinus nigra</i>
Herbaceous Plants	Jewelweed	<i>Impatiens capensis</i>
	False Solomon's Seal	<i>Maianthemum racemosum</i>
	Lady Fern	<i>Athyrium filix-femina</i>
	Sensitive Fern	<i>Onoclea sensibilis</i>
	Creeping Jenny	<i>Lysimachia nummularia</i>
	Wood Avens	<i>Lysimachia nummularia</i>
	Selfheal	<i>Prunella vulgaris</i>
	Broadleaf Enchanters Nightshade	<i>Circaea canadensis</i>
	Goldenrod sp.	<i>Solidago sp.</i>
	Herb Robert	<i>Geranium robertianum</i>
	Common Dandelion	<i>Taraxacum officinale</i>
	Eastern Poison Ivy	<i>Toxicodendron radicans</i>
	Thistle sp.	<i>Cirsium sp.</i>
	American Bugleweed	<i>Lycopus americanus</i>
	Virginia Strawberry	<i>Fragaria virginiana</i>
	Fragrant Bedstraw	<i>Galium triflorum</i>
	Tall Blue Lettuce	<i>Lactuca biennis</i>
	Colt's-Foot	<i>Tussilago farfara</i>
	St. John's Wort	<i>Hypericum perforatum</i>
	Red-berried Elder	<i>Sambucus racemosa</i>
	Common Gromwell	<i>Lithospermum officinale</i>
	Common Milkweed	<i>Asclepias syriaca</i>
	Common Ragweed	<i>Ambrosia artemisiifolia</i>
	Marsh Hedge Nettle	<i>Stachys hispida</i>
	Common Plantain	<i>Plantago major</i>
	Elecampane	<i>Inula helenium</i>
	Curled Dock	<i>Rumex crispus</i>
	Oxeye Daisy	<i>Leucanthemum vulgare</i>
	Orpine	<i>Hylotelephium telephium</i>
	Burdock sp.	<i>Arctium sp.</i>

	Fringed Loosestrife	<i>Lysimachia ciliata</i>
	White Avens	<i>Geum canadense</i>
	Dog-strangling Vine	<i>Vincetoxicum rossicum</i>
	Purple Loosestrife	<i>Lythrum salicaria</i>
	White Clover	<i>Trifolium repens</i>
	Cow Vetch	<i>Vicia cracca</i>
	Queen Anne's Lace	<i>Daucus carota</i>
	Daisy Fleabane	<i>Erigeron annuus</i>
	Common Cinquefoil	<i>Potentilla simplex</i>
	Alsike Clover	<i>Trifolium hybridum</i>
	Meadow Buttercup	<i>Ranunculus acris</i>
	Wall Lettuce	<i>Mycelis muralis</i>
	Wood Nettle	<i>Laportea canadensis</i>
	Bird'sfoot Trefoil	<i>Lotus corniculatus</i>
	Spinulose Wood Fern	<i>Dryopteris carthusiana</i>
	Lesser Duckweed	<i>Lemna minor</i>
	Deptford Pink	<i>Dianthus armeria</i>
	Chickory	<i>Cichorium intybus</i>
	White Sweet Clover	<i>Melilotus alba</i>
	Black Medick	<i>Medicago lupulina</i>
	Broad-leaved Cattail	<i>Typha latifolia</i>
	Sweet Cicely	<i>Osmorhiza longistylis</i>
	Garlic Mustard	<i>Alliaria petiolata</i>
	Dame's Rocket	<i>Hesperis matronalis</i>
	Periwinkle	<i>Vinca minor</i>
	Canada Anemone	<i>Anemone canadensis</i>
	Canada Thistle	<i>Cirsium arvense</i>
	Marginal Wood Fern	<i>Dryopteris marginalis</i>
	Yellow Hawkweed	<i>Hieracium pratense</i>
	Nipplewort	<i>Hieracium pratense</i>
	Heart-leaved Foamflower	<i>Tiarella cordifolia</i>
	Yellow Avens	<i>Tiarella cordifolia</i>
	Mouse-ear Chickweed	<i>Cerastium vulgatum</i>
	Spotted Joe-pye Weed	<i>Eutrochium maculatum</i>
	Violet sp.	<i>Viola sp.</i>
	Rock Polypody	<i>Polypodium virginianum</i>
	Bindweed sp.	<i>Convolvulus sp.</i>
	Yellow Wood Sorrel	<i>Oxalis stricta</i>
	American Plantain	<i>Plantago rugelii</i>
	New England Aster	<i>Symphyotrichum novae-angliae</i>
	Early Goldenrod	<i>Solidago juncea</i>

	Large-fruited Burreed	Sparganium eurycarpum
	Yellow Pond Lily	Nuphar variegata
	Tall Hairy Agrimony	Agrimonia gryposepala
	Cleavers	Galium aparine
	Viper's Bugloss	Echium vulgare
	Bethlehem Sage	<i>Pulmonaria saccharata</i>
Grasses and Sedges	Reed Canary Grass	Phalaris arundinacea
	Smooth Brome	Bromus inermis
	Timothy	Phleum pratense
	Canada Bluegrass	Poa compressa
	Swamp Meadow Grass	Poa palustris
	Nodding Fescue	Festuca nutans
	Slender Path Rush	Juncus tenuis
	Perennial Bentgrass	Agrostis perennan
Mosses and Lichens	Tree Clubmoss	Lycopodium dendroideum
	Common Haircap Moss	Polytrichum commune
	American Tree Moss	Climacium americanum
	Rock Tripe	Umbilicaria mammulata
	Reindeer Lichen	Cladonia rangiferina
Fungi	Turkey-tail	Trametes versicolor
	Hemlock Varnish Shelf	<i>Ganoderma tsugae</i>

Appendix C – Property Monitoring Form

McLean Memorial Forest

Property Monitoring Reporting Form

While monitoring the McLean Memorial Forest, please take note of any hazards/issues and take photos and gps co-ordinates where appropriate. Please complete this form and include any supporting photos or illustrations following your monitoring visit.

Monitoring Visit Summary:

Date of Visit:	Weather:
Those Present:	Contact info:
Management Plan Reviewed? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Follow-up required (ex: clear tree from trail, deal with vandalism, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please describe:	Management actions taken during monitoring visit (ex: invasive species removal, litter removal, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please describe:

1. Hazards

☐ Plants (Poison Parsnip, Poison Ivy, etc.)

☐ Tree Snags

☐ Broken glass

☐ Other

Please describe :

2. Existing Structures (boardwalks, bridges, etc.)

Structure	Location	Condition	Comments

3. Trail Condition

Check off any issues present:

☐ Erosion/soil loss

☐ Ruts

☐ Wet/flooded areas

☐ New unauthorized trails

☐ Other

Please Describe:

Please indicate overall trail condition rating:

Good (Minimal issues, obstacles, or hazards) ☐

Fair (minor issues that do not affect trail use) ☐

Poor (serious issues that require attention and prevent trail use) ☐

4. Disturbances

a) Natural:

- ☐ Flooding
- ☐ Wind falls
- ☐ Invasive species
- ☐ Beaver dams
- ☐ Erosion
- ☐ Other

Please describe:

b) Human

- ☐ Dumping
- ☐ Motorized Vehicles
- ☐ Vandalism
- ☐ Unauthorized construction/development
- ☐ Shoreline alteration
- ☐ Other

Please describe:

5. Natural Heritage Values

Citizen science apps, such as iNaturalist, Seek, or Merlin can be used for species identification

Wildlife Observations:

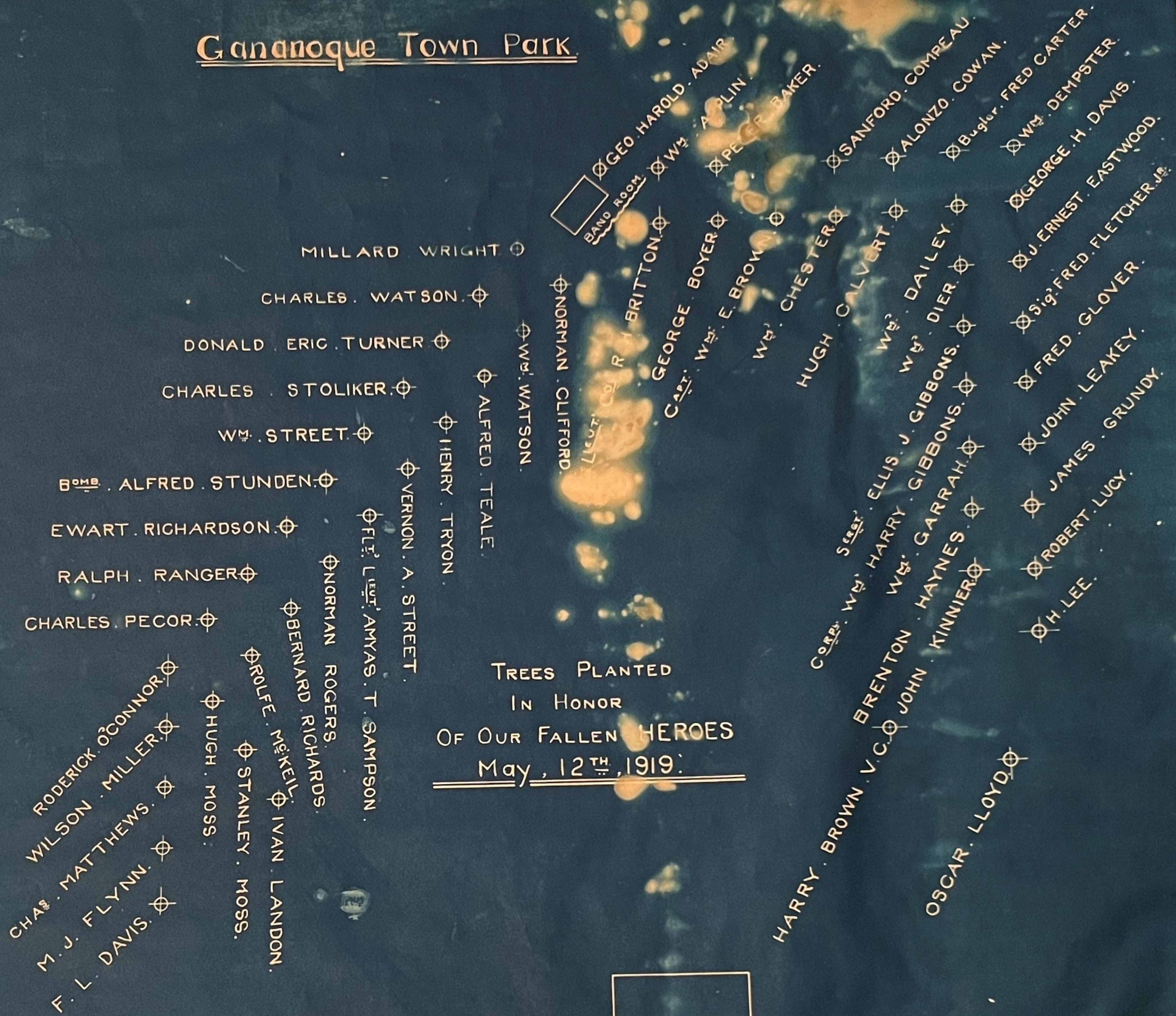
Vegetation (trees, shrubs, plants):

Habitat features (ex: nests, dens, wildlife trails, cavity trees, etc.):

6. Additional Notes/Comments:

7. Maps, illustrations, or photos

Gananoque Town Park



TREES PLANTED
IN HONOR
OF OUR FALLEN HEROES
May, 12TH, 1919.

"THESE SHALL RESIST THE EMPIRE FROM DECAY,
WHEN TIME IS OVER AND WORLDS HAVE PASSED AWAY;
COLD IN THE DUST, THE PERISHED HEART MAY LIE,
BUT THAT WHICH WARMED IT ONCE CAN NEVER DIE."

TOWN HALL

KING

SCALE, 1" = 40 FT.