



Westfield Heritage Village
Conservation Area

Master Plan

Final

November 1, 2018





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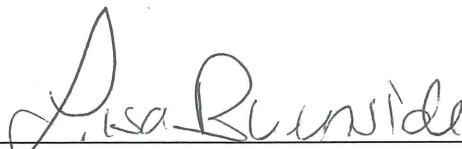
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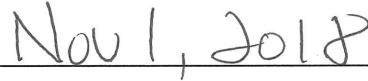
1.0 APPROVAL STATEMENT

1.1 Approval Statement

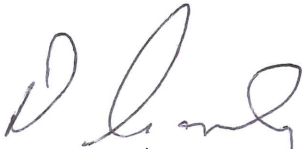
We are pleased to approve the *Westfield Heritage Village Conservation Area Master Plan* as the official policy document for the management and development of this conservation area. This Master Plan supports the current Vision and Mission Statements in the current HCA Strategic Plan. The plan reflects the Hamilton Region Conservation Authority's intent to protect the natural environment and constructed features of Westfield and to maintain and develop high quality facilities for cultural heritage appreciation, education, recreation, and enjoyment of the conservation area by visitors.



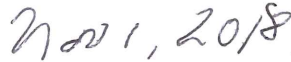
Lisa Burnside
Chief Administrative Officer
Hamilton Conservation Authority



Date



Doug Conley
Chair, Board of Directors
Hamilton Conservation Authority



Date



1.2 Acknowledgements

The *Westfield Heritage Village Conservation Area Master Plan* is the product of collaboration and input from staff at the Hamilton Region Conservation Authority also known as the Hamilton Conservation Authority (HCA), board members, volunteers, local residents, and stakeholders. The expertise and dedication of these individuals was harnessed to help create this new Master Plan for the conservation area. The HCA thanks those who participated in the workshops, surveys, and meetings held to gather information.

The previous Master Plan was adopted in 2005. With the acquisition of new land in 2016, HCA staff identified the need to update the Master Plan. HCA staff commenced this study in February 2017 and this document summarizes the investigation and analysis of current planning, environmental, social, economic, tourism and recreation information gathered over the past year.

The HCA acknowledges the assistance of many staff and volunteers in the preparation of this Master Plan.



2.0 PREFACE

The *Westfield Heritage Village Conservation Area Master Plan* is the guiding policy document for the development and management of this conservation area which is owned and administered by the Hamilton Region Conservation Authority (HCA). The recommendations in this Master Plan are intended to help provide direction and guidance for wise management and operation of Westfield Heritage Village Conservation Area (Westfield) over the next ten years.

Westfield is an important tourist attraction for visitors from around the world as well as the local area. Recent land acquisitions by the HCA have significantly increased the size of this conservation area. Considerations for this plan include changes in urban development, tourism, recreation, demographic and market trends that have occurred since the adoption of the 2005 Master Plan.

This Master Plan was developed in a five stage process by HCA staff who scoped the work plan, developed a project schedule, and proposed a framework for consultation and review through an HCA steering committee.

Phase 1

Initiation was completed September 2017 with the establishment of the steering committee, engagement of staff, collection of mapping information, and gathering information through meetings and workshops. Staff, the steering committee, selected volunteers and stakeholders were engaged in this process.

Phase 2

An inventory was completed February 2018 with the collection and assembly of background information, mapping, and ecological field surveys of the property. Visitor surveys were conducted summer of 2017 in person and on-line with staff, volunteers, and the public. Staff also operated a public information booth at the Westfield Ice Cream Carnival to notify the public of the Master Plan process and respond to questions.

Phase 3 and 4

A series of roundtable focus groups on Site Concepts, Management and Operations were completed April 2018, discussing site concept, site philosophy, vision and mission, operations, finance, marketing and tourism. The Information gathered from these phases informed this new Master Plan.

Phase 5

Finalizing the Master Plan included reviews of the compiled draft plan by the steering committee, stakeholders, and board advisory members. The draft plan was also posted online for public review and comment in addition to a public open house held at Westfield. The final draft document was compiled after public comment, presented to the Conservation Advisory Board and ultimately adopted by the HCA Board of Directors.

3.0 EXECUTIVE SUMMARY

3.1 Introduction

Westfield is a Conservation Area of approximately 204 hectares (503 acres) in size, and contains the heritage village as well as natural woodlands, plantation forests, provincially significant wetlands, meadow areas, cultural heritage features from past farming operations, and several well marked recreational trails easily accessed from the village area. Westfield is a community resource which attracts visitors and generates revenue for the HCA from a variety of special events such as public programs, food services, a gift shop, facility rentals, school tours, bus tours, wedding bookings, and film and television productions.

Westfield Heritage Village opened to the public in 1964, and is operated as a living history museum by the HCA. By 2016 the Village had over 50 buildings and a diverse artifact collection. The public is often greeted in the village area of the property by costumed staff and volunteers on weekends and during special events.

The HCA began managing Westfield in 1987 and in 2016, the HCA acquired ownership of Westfield from the City of Hamilton.

This Master Plan supports the HCA's current Vision and Mission Statements.

3.2 Goals

This Master Plan outlines the long-term goals for conservation and land management at Westfield, and is intended to be a living document that will be updated completely in ten years' time.

This Master Plan reflects HCA's intent to protect the natural environment and constructed features of Westfield and to maintain and develop high quality facilities for cultural heritage appreciation, education, recreation, and enjoyment of the conservation area by visitors.

The long-term goal for conservation requires natural areas to be protected and biodiversity to be maintained and enhanced within this rural area near the Greater Toronto and Hamilton Region of Southern Ontario.

The HCA is committed to long-term stewardship of the heritage village at Westfield, recognizing the importance of the built and cultural heritage resources held in trust for the public to enjoy. The long-term goal for Westfield is for wise management of the cultural heritage zones, outlined in this master plan, through appropriate artifact and building conservation, capital development of the built and natural areas and through living history activities enjoyed by visitors.

3.3 Objectives

The goals and objectives in the previous Master Plan have been assessed, and through consultation and analysis of current operations, the HCA supports the following long-term objectives for Westfield:

1. To utilize, protect, conserve and exhibit the existing resources on site - the natural setting, the heritage buildings, artifact collection, and site features such as trails.
2. To provide visitors with a heritage village setting reflective of Southern Ontario (Upper Canada) in which the heritage and cultural heritage can be experienced and appreciated.
3. To offer a range of interpretive, active and self-guided educational, and passive recreation programs accessible for people of all ages and abilities.
4. To encourage community involvement and co-operative partnerships with other appropriate groups.
5. To be a cultural tourist attraction for the Greater Toronto and Hamilton Region.
6. To connect everyone to natural and cultural heritage experiences.
7. To prepare supplemental viable management plans at Westfield in support of this Master Plan.
8. To be respectful of local indigenous communities and peoples.



3.4 Key Items

In the process of gathering information over the past year, a number of key items were identified and brought forward to be addressed in the new Master Plan. These are as follows:

1. Protect the Natural Areas

The long-term goal for conservation requires natural areas to be protected and biodiversity to be maintained and enhanced within this rural area near the Greater Toronto and Hamilton Region of Southern Ontario. Environmental protection at Westfield will not be limited to provincially significant features. The entire property will be maintained as a healthy, diverse, and sustainable natural environment consistent with the conservation area's other objectives. The restoration of degraded environments will be given a high priority.

Significant environmental items for this Master Plan include:

- In the past, environmental management has been lower in priority than the operation of the heritage village. Now there are more lands to consider with the increased land holdings. Environmental management of the entire property will be a priority.
- The new Managed Forest Plan has allowed for recent thinning of the forest plantations. Restoration from logging activities needs to be addressed, and future forest management works shall be considered in land management decisions.

- All development proposed for the property shall respect the environmentally sensitive and protected natural areas.
- Multiple access points into the property have evolved over time through unauthorized all-terrain vehicle (ATV) use. Unauthorized access shall be addressed in the site concepts and long-term management of the property.
- Large public events strain the existing services on site. Natural environment protection shall receive high priority in all future management decisions and development solutions for the conservation area.

2. Cultural Heritage Appreciation and Education

A key focus of Westfield will continue to be the heritage village. The HCA supports the long-term operation of the heritage village as a living history museum and will continue to provide opportunities for the public to explore and appreciate natural and cultural heritage at Westfield. The entire conservation area is very suitable for heritage appreciation and education programming. A full range of opportunities will be offered, from unstructured individual exploration to organized programs and interpretive centres. Programming services and facilities are described in Section 10.

Significant cultural heritage items that have been identified to be addressed in this Master Plan include:

- The intention to maintain heritage authenticity shall be balanced with the need for public safety and accessibility requirements, availability of resources, and budget constraints.
- Cultural heritage features on the property are to be utilized for education, active and self-guided interpretation, special programs, and research.
- Education programs will continue to be of prime importance at Westfield. See Section 10.1 for more information.
- Update the inventory of heritage structures prepared in 1996.
- Built heritage resources are an important community resource and the value of these resources is viewed by the HCA as important as providing tourism benefits and generating revenue
- The operation of the heritage village as a living history museum involves a large number of volunteers and staff acting as costumed interpreters. Opening the buildings in the village and offering this living history experience is currently limited to weekends and special events. Visitors have expressed interest in the heritage village being “open” seven days a week. See Section 7 for more information.

3. Improving the Visitor Experience

The Ontario Ministry of Finance has predicted that over the next 25 years Ontario's population is projected to grow by 30 percent, or more than 4.2 million. Increased visitation and revenues will provide more funds to help the HCA, and Westfield's conservation area protection and cultural heritage appreciation objectives. Further statistics are identified in *Appendix 6*, and recent trends in Southern Ontario visitation and tourism initiatives are noted in Section 8.

As population grows in the Greater Toronto and Hamilton Region there is an opportunity to attract more visitors to Westfield. The challenge will be to keep up with daily visitor demands and continue to provide appropriate, high quality, educational and recreational experiences in the conservation area within budget constraints, while ensuring protection of valued natural heritage features.



Consequently, significant challenges identified to improve the visitor experience at Westfield for this Master Plan include:

- Parking space at Westfield, as at many other HCA conservation areas can be insufficient during large events. Westfield is not on a public transportation route, so the majority of visitors arrive by private automobile, outside of special events that provide shuttle services. Alternative travel and parking options are to be considered with event planning. Parking capacity requires further study with the capital development in this Master Plan.
- Expansion of the current site infrastructure – water supply, septic system, electrical etc. will be necessary to meet increased visitation demand. The public washrooms are already being strained by the number of visitors. Servicing of the site is difficult and expensive due to the shallow bedrock. A financial strategy along with a land management strategy will be required to plan for and sequence capital upgrades over a number of years.
- The HCA Board of Directors approves the concept of a Westfield Visitor / Orientation Centre with the support of the Hamilton Conservation Foundation (HCF) and staff, subject to further investigation of fundraising options, feasibility, costs, and operating costs and projected revenues. An orientation centre is envisioned to provide additional public washrooms, an orientation and fee collection area, indoor presentation/meeting space open year round, and the ability to host events indoors in case of inclement weather. Development of this facility will be completely dependent on funding and securing operational funds as outlined in Section 6.3 and Section 8.

4. Achieving Financial Sustainability

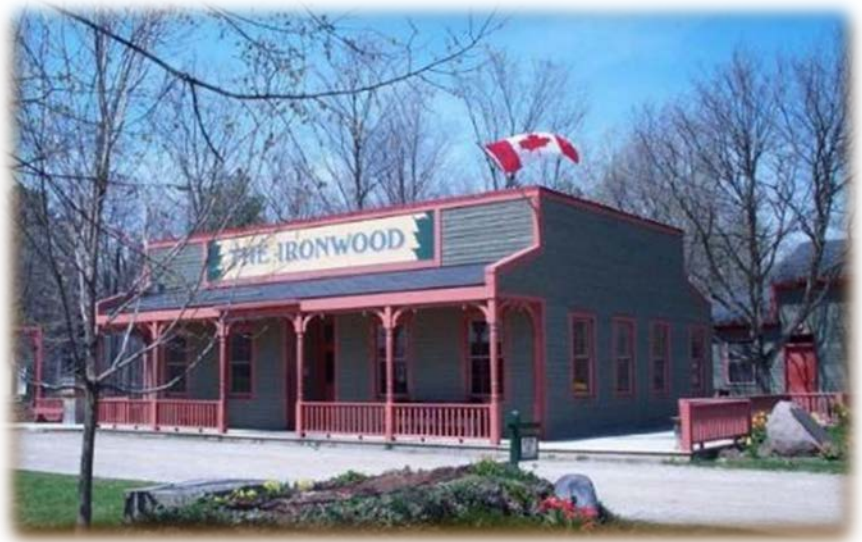
An overview of the current operating revenues and expenses for Westfield are listed in *Appendix 4*. Westfield's financial sustainability relies on municipal support as do all museums. Of significant importance are the special events, which can be affected by the

weather of the day and the school programs which are more stable and the facility rentals to the film industry, which are subject to fluctuation depending on the available projects. It is worth noting that, combined with other miscellaneous rentals, self-generated revenue amounts to 30% of the total revenue received.

Since the last Master Plan, the HCA has now acquired ownership of Westfield from the City of Hamilton. As part of the agreement, the City pledged to continue its financial support as it had in the past, with annual adjustments made in a similar fashion to those granted to Boards and agencies

Significant financial items for this Master Plan include the following:

- A major financial expense, consistent with other HCA conservation area operations is the expense for staffing. Fulltime staff currently represent over 60% of total expenses. A large volunteer base supports the operation, and may need to be re-assessed over the life of this plan to cultivate new recruits and retain existing volunteers. See Section 7.
- Costs for promotion, utilities, and equipment have all remained within a fairly tight range over the years. Increased land management costs are to be expected moving forward now that the conservation area has increased in size and will require as much attention as the village. In addition, as infrastructure is updated and enhanced, managing expenses will be a challenge within the budget limitations.
- Create and implement financially viable strategies for marketing, development, operation and management of Westfield in support of this Master Plan.
- Identify the resources required for delivery of items noted in this Master Plan, preferably in the form of a business case development plan, and particularly for significant financial items.
- Volunteers are important to the living history experience and delivery of programs in the heritage village. The role of volunteers will need to be considered in all business plans developed for the heritage village. Creative methods of marketing and delivery revenue generating events and programs may need to be explored, and current operations may need to be reevaluated.



3.5 Policy Framework

Conservation areas owned and operated by the HCA are diverse in nature, spread across the HCA watershed, and in the particular case of Westfield located outside of the HCA watershed.

The HCA has approached this Master Plan with the mind-set that other conservation areas in the HCA portfolio requiring Master Plans or updates to Master Plans will follow a consistent methodology. Given that most HCA conservation areas are located within the jurisdiction of the Niagara Escarpment Commission, the policies of the Niagara Escarpment Plan and guidelines of the Niagara Escarpment Parks and Open Space System (NEPOSS) planning manual have been observed in the preparation of this Master Plan.



The *Westfield Heritage Village Conservation Area Master Plan* adheres to policies of the Hamilton Conservation Authority, City of Hamilton, Grand River Conservation Authority, and the Province of Ontario. The property is within the Greenbelt plan, Municipal boundary of the City of Hamilton, Rural Hamilton Official Plan of the City of Hamilton, and watershed boundary of the Grand River Conservation Authority.

3.6 Master Plan Zones

This Master Plan follows the NEPOSS planning manual and identifies six land use zones for Westfield. These zones are intended to help guide future planning, development, and management of the conservation area. The zone boundaries are shown in more detail on Map 2 in *Appendix 1*.

Zones are intended to fulfill a variety of functions in the conservation area, including the following as outlined in the current NEPOSS manual:

- Identification and recognition of the features and attributes.
- Protection of key natural heritage features and cultural heritage features and functions.
- Segregation of conflicting recreational activities by directing activities with higher impacts to the least sensitive areas and low-impact activities to areas that are more sensitive, if appropriate.
- Delineation of areas on the basis of their requirements for management.
- Standardization of the approach to support management objectives and actions, based on a variety of features.
- Balancing of public use with the preservation of the natural environment.

There are six types of zones as follows:

- | | |
|-----------------------|----------------------------|
| ○ Nature Reserve Zone | ○ Cultural Heritage Zone |
| ○ Natural Zone | ○ Development Zone |
| ○ Access Zone | ○ Resource Management Zone |

The following Sections briefly describe each zone. The tables in each Section provide a zone description, management direction, and permitted uses, including types of development in each zone. The permitted uses and development policies for each zone will not abrogate or derogate from any Aboriginal or treaty right recognized or affirmed by the *Constitution Act*. All resource, recreational uses, and facility development are subject to the standard legislation and policies governing public lands and conservation areas, as well as the resource management policies identified in Sections 7.

Appendix 10 contains the natural inventory species lists from background research and field work completed over the past year in the preparation of the Master Plan. In this Master Plan, “species at risk” means species listed by the MNRF on its index list of vulnerable, threatened, endangered, extirpated, or extinct species of Ontario including:

- Species named by regulation under the *Endangered Species Act*
- Species designated as vulnerable or threatened in Ontario by MNRF.
- Species designated as of special concern (formerly vulnerable), threatened, or endangered in Canada by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)



Nature Reserve Zone

Nature reserve zones include significant earth and life science features which require management distinct from that in adjacent zones, as well as a protective buffer with an absolute minimum of development.

Westfield's nature reserve zones contain provincially significant wetlands, water courses, and significant wildlife habitat.

Table 1. Nature Reserve Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Nature Reserve	<p>Include significant natural heritage features or areas that require careful management to ensure the long-term protection of natural heritage features.</p> <p>Intended to protect ecological diversity and provide long-term protection for the following:</p> <ul style="list-style-type: none">➤ Habitat of endangered, threatened, and rare species or species of special concern.➤ Wildlife and fish habitat.➤ Hydrological systems (e.g. streams, wetlands, ponds)➤ Woodlands➤ ANSIs➤ Significant landforms or escarpment features	<p>These areas are predominantly natural and should contain naturally functioning ecosystems.</p> <p>This zone is intended to protect natural heritage features in the long-term.</p>	<p>To protect, preserve, and rehabilitate identified natural heritage features, visitor uses are limited or restricted.</p> <p>Development is generally restricted to trails, necessary signs, interpretive facilities (where warranted), temporary research facilities and conservation practices/uses.</p>

Natural Zone

Natural zones include natural, cultural, and aesthetic landscapes in which minimum development may be permitted to support low-intensity recreational activities.

Westfield's natural zones are the natural woodlands adjacent to the nature reserve zones.

Table 2. Natural Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Natural	Includes natural and high quality natural settings, and aesthetic landscapes in which a minimum of development is permitted to support low to moderate intensity recreational activities.	The Natural Zone can function as a buffer between Development Zones and Historical or Nature Reserve Zones. Natural Zones are not permitted within / inside Nature Reserves.	Low to moderate intensity recreational activities are permitted. A minimal level of development (e.g. trails, backcountry campsites, necessary signs and minimal interpretive facilities) is permitted to support low-intensity recreational activities.



Access Zone

Access zones serve as staging areas to support adjacent zones.

Westfield's access zones support the heritage village, at two locations as shown on Map 6, and for the conservation area at two locations as shown on Map 2.

Table 3. Access Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Access	Serve as staging areas (e.g. trailheads, parking lots) where minimal facilities support the use of Nature Reserve Zones and relatively undeveloped Natural and Historical zones.	Access zones are intended to support the use of and access to adjacent zones.	Development may include minimal facilities to support Nature Reserve, Natural, and Historical Zones. Examples include roads, signs, trailheads, and parking lots.



Cultural Heritage Zone

Cultural heritage zones are intended to protect significant archaeological or cultural heritage features.

Westfield's cultural heritage zones include the heritage village, remnants of the former farmstead, and the teaching forest area. Archaeological investigations have not been undertaken on the property, should significant archaeological areas be discovered these would be added to the zone mapping. The City of Hamilton has advised that a Stage 1 archaeological assessment should be conducted for this zone since much of the zone meets archaeological potential due to proximity to water and historic transportation corridors.

Table 4. Cultural Heritage Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Cultural Heritage	Include significant archaeological or cultural heritage features or areas that require management that will ensure the long-term protection of the significant features.	Management planning for archaeological or cultural heritage features may range from maintaining their present condition to restoring and/or reconstructing the site.	Development will include protection and interpretation of archaeological or cultural heritage features. Examples include interpretive, educational, research and management facilities, trails, programs, signs and historical restorations or reconstructions.



Development Zone

Development zones provide the main access to the conservation area for the visitor.

Westfield's development zone includes the main entrance into conservation area from Kirkwall Road, all parking areas, a rental residence, service buildings and work areas for conservation area operations. The City of Hamilton has advised that a Stage 1 archaeological assessment should be conducted for this zone since much of the zone meets archaeological potential due to proximity to water and historic transportation corridors.

Table 5. Development Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Development	<p>Development Zones provide the main access to the conservation area or open space, and facilities and services to support the recreational activities available.</p> <p>This type of zone may allow for the development of visitor and conservation area facilities.</p>	<p>A Development Zone is usually oriented to the provision of recreational opportunities that are suited to the natural character of the conservation area or open space and are conducted in an environmentally sustainable manner.</p> <p>This zone should have minimal negative impact on natural heritage features, cultural heritage features, the natural landscape or watersheds.</p> <p>Development Zones are not permitted within / inside Nature Reserves.</p>	<p>Development may include roads, parking lots and gates, beaches, picnic areas, campgrounds and commercial service facilities, and orientation, interpretive, educational, research, and maintenance facilities.</p> <p>Development of facilities must be designed and undertaken in a way that will minimize their environmental and visual impact.</p>

Resource Management Zone

Resource management zones include areas managed to provide resource-related projects such as forest products, disturbed areas requiring restoration, and land that has a long-term resource agreement such as a managed forest.

Westfield's resource management zones include the forest plantations, former agricultural lands, and disturbed areas.

Table 6. Resource Management Zone

Zone	Description	Management Direction	Permitted Uses (subject to management planning)
Resource Management	<p>Includes certain public lands that are managed primarily to provide resource-related benefits such as forest products, fish and wildlife, or flood control.</p> <p>Previously disturbed sites (e.g. old farm fields, abandoned quarries) where active measures are being taken to re-establish natural vegetation.</p> <p>May include land that has traditionally been managed under long-term resource agreements (e.g. forest management agreements or agricultural leases).</p>	<p>Resource Management Zones are sustainably managed for many diverse values such as wildlife, fisheries, forestry and outdoor recreation.</p> <p>Such zones may be places for experimenting with alternative resource management practices and developing a better understanding of ecosystem structures and functions in a scientifically sound manner. Should demonstrate exemplary conservation and stewardship.</p> <p>Should not be established in Nature Reserves.</p>	<p>These areas may be used to demonstrate ecologically sustainable resource management practices.</p> <p>Establishing permanent research plots for monitoring purposes (e.g. permanent sample plots for growth and yield studies) is encouraged in this zone.</p> <p>Water may be controlled for purposes related to flood protection, watershed management, or municipal water supply.</p> <p>Recreation uses in this zone are subject to HCA policies and management planning.</p>

3.7 Development Priorities

Development priorities and estimates of development costs for Westfield over the next ten years are listed in *Appendix 2*.

A number of the projects are for improved operations while others are to round out the heritage village environs. With many of these improvements there will be additional operating costs.

New development requires the support and financial contribution of many partners and agencies including the City of Hamilton, the Hamilton Conservation Foundation and the Friends of Westfield Heritage Inc. Development projects may also require the approval of the Grand River Conservation Authority and City of Hamilton as noted in Section 4.3, Planning and Development Controls.

The Hamilton Conservation Foundation is a valued partner that raises awareness, funds and resources to support capital development, building maintenance, and operations at Westfield. The HCA supports increasing the amount of finances for Westfield by working with the Foundation on action plans for individual giving, donations, estate giving and corporate giving.

The Friends of Westfield Heritage Village Inc. is an equally valuable partner that generates funds, used mainly for capital development, through operation of the Village Gift Shop, application for grants, donation requests and fundraisers. The success of this volunteer organization is crucial to the ongoing capital development program. The HCA is supportive of the efforts of the Friends and committed to working with them on action plans for capital development projects at Westfield.



There are always numerous projects under active consideration with many requiring various forms of fundraising. Opportunities may also arise from time to time for the HCA to acquire new items for Westfield, and in the past has included consideration of major items such as heritage buildings offered for re-location to the heritage village at Westfield. Such opportunities are welcomed. The volunteer program shall be considered in all business decisions made by HCA in the operation of this conservation area. Space for future maximum growth of the heritage village has been set out in this Master Plan, shown on Map 6, in *Appendix 1*. It is the HCA's practice to review on a case by case basis each development

opportunity and assess the merits in relation to the guidelines offered in this Master Plan.

All development projects are to be reviewed annually for the life of this Master Plan, and the overall capital development priority list assessed accordingly. Capital projects should not be started until a long-term strategy with timelines and costs for each project are clearly defined and sufficient resources are available to complete them.

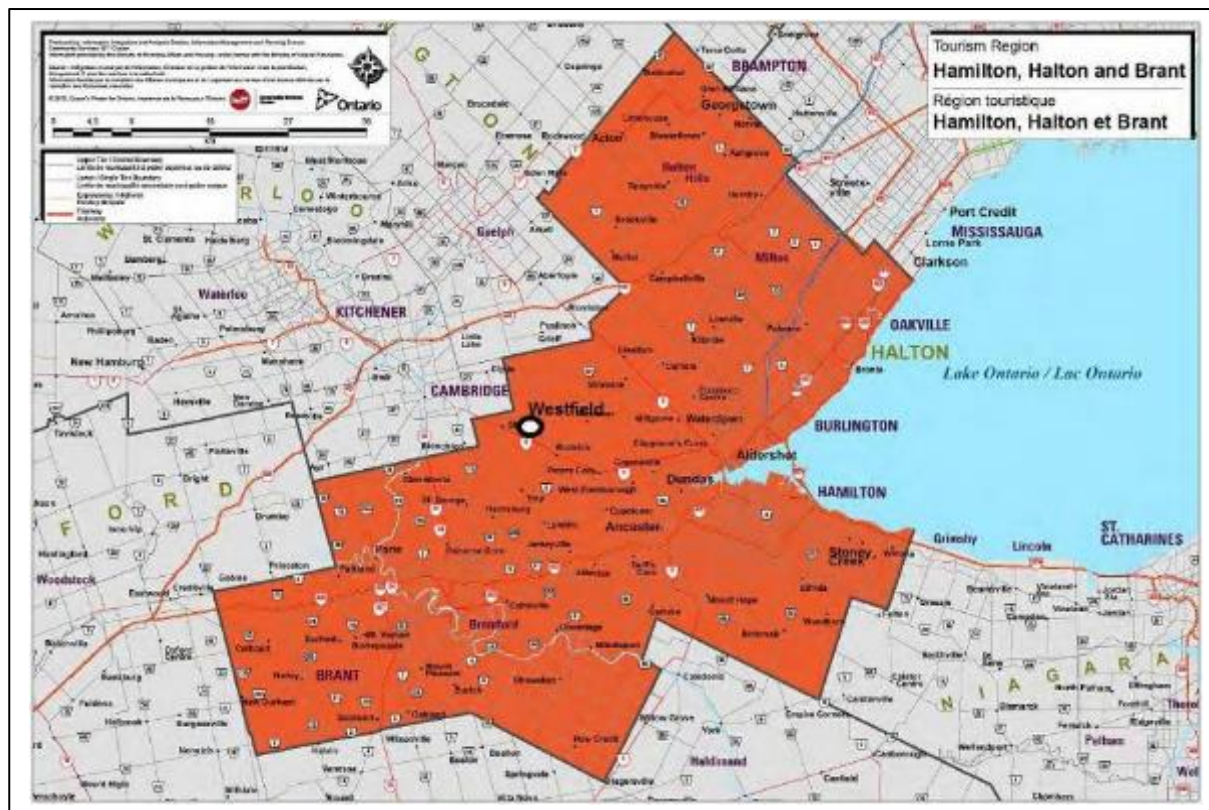
4.0 BACKGROUND

4.1 Study Area

Westfield Heritage Village Conservation Area is located within the City of Hamilton, midway between Cambridge and Hamilton, northwest of Rockton, Ontario. The main entrance to the park is at 1049 Kirkwall Road north of Highway 8.

Westfield is an important tourist attraction within an easy day-trip of a number of major urban centres in the Greater Toronto and Hamilton Region. Figure 1 shows the location of the conservation area in Tourism Region 3 established by the Ontario Ministry of Tourism, Culture and Sport. This region is marketed as the “Heart of Ontario” by the Hamilton Halton Brant Regional Tourism Association. Tourism data for this region has been included in *Appendix 7*.

Figure 1: Tourism Region

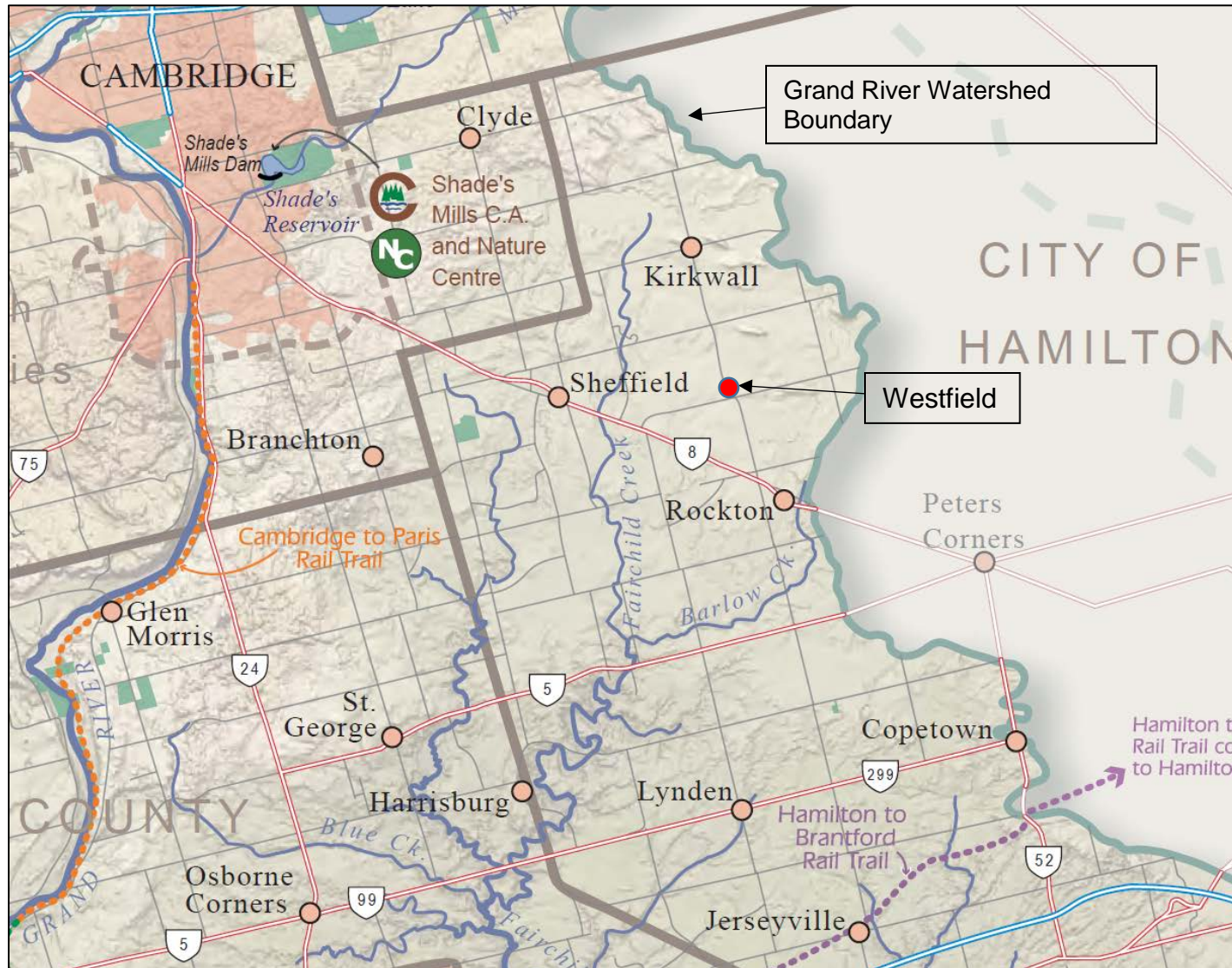


Map Source: Ontario Ministry of Tourism, Culture and Sport

Westfield is located within the Fairchild Creek watershed which is regulated by the Grand River Conservation Authority. The boundary of the Grand River Conservation Authority is shown in Figure 2.

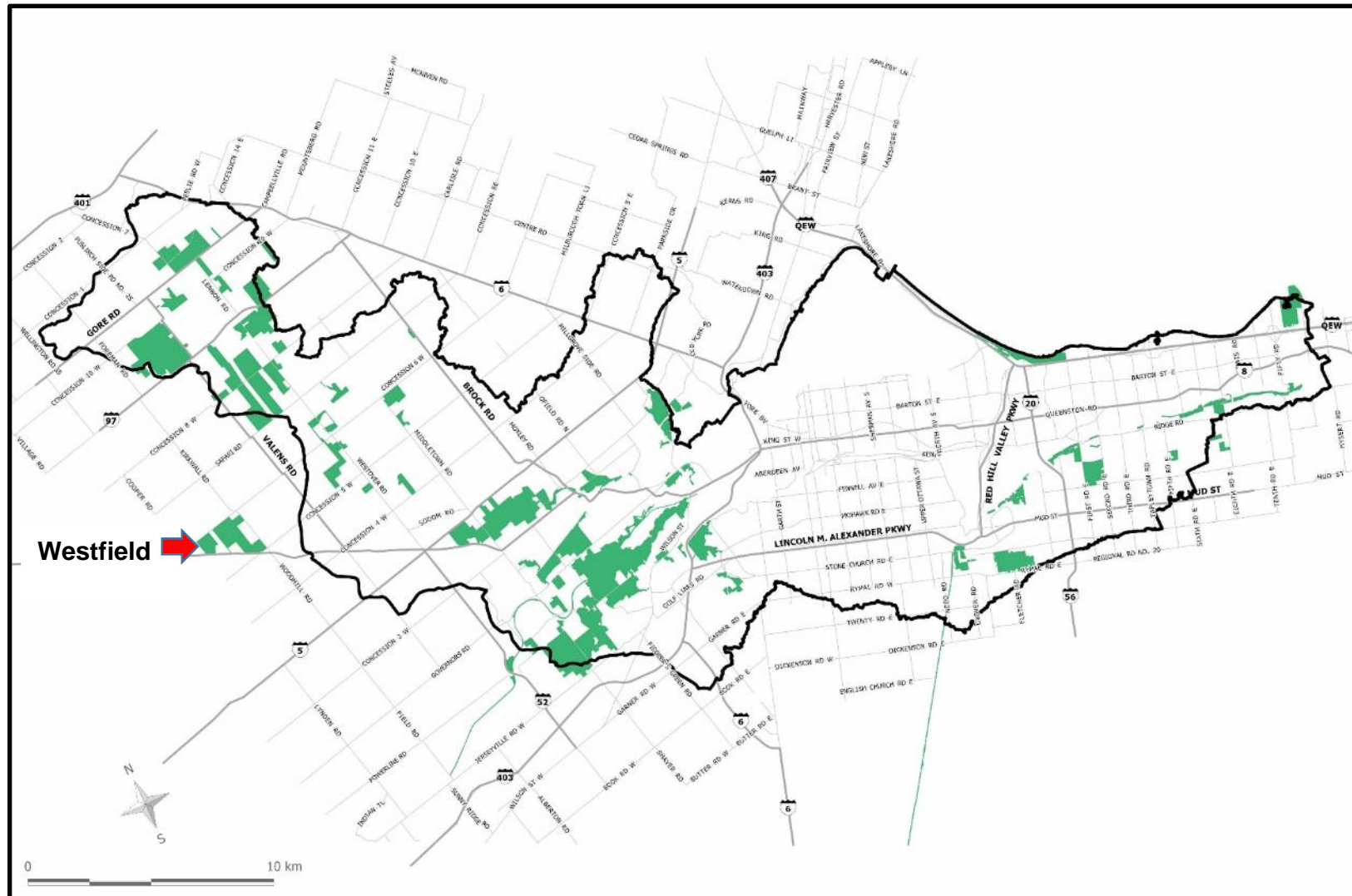
Accordingly, any development which is proposed for Westfield may require review by the Grand River Conservation Authority as well as the City of Hamilton.

Figure 2: Grand River Watershed and Westfield Location Map



Watershed Map Source: Grand River Conservation Authority

Figure 3: Hamilton Conservation Authority Watershed and Westfield Map



Watershed Map Source: Hamilton Conservation Authority

4.2 Property History

Westfield is a 204 hectare (503 acre) conservation area within the City of Hamilton, operated by the HCA with funding assistance from the City of Hamilton.

The HCA recognizes that First Nations inhabited this area in rural Flamborough before European contact, notably the Chonnonton Peoples (Neutrals) who were heavily populated in this area. Several archaeological assessments completed off-site by others reveal nearby communities extent until the 17th century Haudenosaunee invasion. Respect for the history and stories of indigenous communities are supported in this Master Plan.

Originally conceived as Westfield Pioneer Village the site was opened to the public in 1964. It began as a community project initiated by Glenn Kilmer and Goldie MacDonell, two Brantford High School teachers, who bought the initial 16 hectare (39 acre) site in 1960. Westfield grew and over time, more than 35 nineteenth century buildings were relocated from various sites to their new home at Rockton.

In 1968 the site was acquired by the County of Wentworth and renamed Wentworth Pioneer Village. The site was expanded with the addition of 131 hectares (324 acres) of adjacent lands purchased by the County as part of its County Forest Program.



In 1974, ownership of the Village was transferred to the Region of Hamilton-Wentworth. In 1984, with changing visitor patterns and inadequate upgrading of facilities, the operation was no longer financially viable and was closed to the public pending redevelopment. In early 1988, an agreement was reached with the HCA assuming management control of the project. The agreement gave the HCA the right to develop the project at its discretion, subject to yearly budgets approved by Hamilton Region.

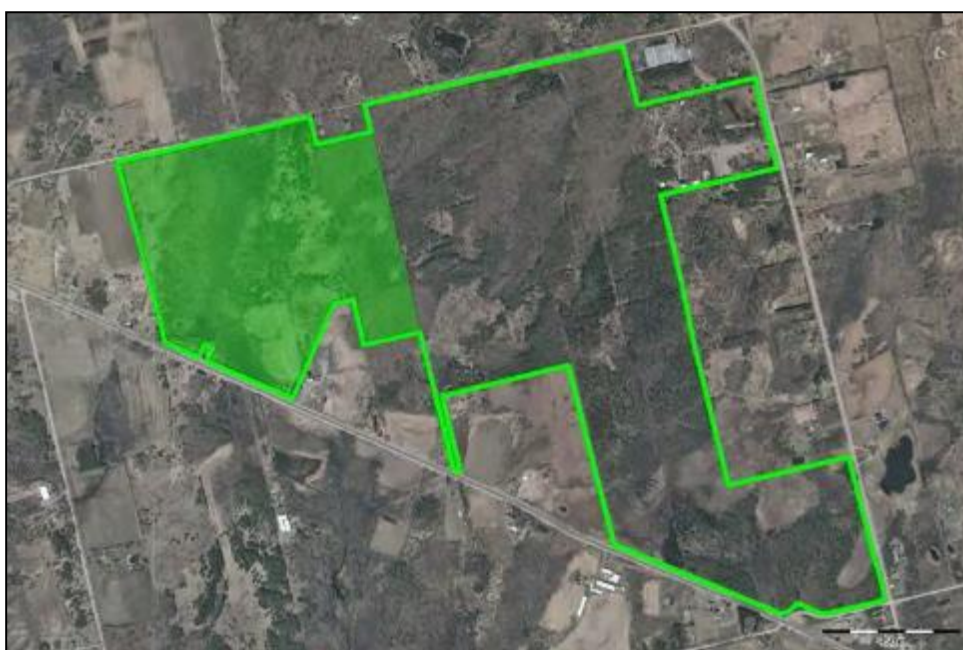
The HCA on behalf of Hamilton Region explored several development concepts. In addition, the HCA maintained and upgraded several of the buildings, provided site security, and constructed an artifact storage center which housed many artifacts.

In 2001 the Regional Municipality of Hamilton-Wentworth became the new City of Hamilton and the HCA continued to manage the project on behalf of the City. In 2005 the HCA created a new Master Plan for the property. By that time the site comprised 147 hectares (363 acres) with the heritage village consisting of a number of buildings occupying a 16 hectare area in the northeast corner. A small portion of the property (1.875 acres) was also being leased to a tenant occupying a rental house at the Kirkwall Road entrance.

In 2015 the HCA commenced with acquisitions of four adjacent land parcels totaling 58 hectares (144 acres). These included 40.5 hectares (100 acres) of wooded wetlands acquired from the City

of Hamilton; 5.3 hectares (13 acres) of privately owned vacant land; and a 12.4 hectare (30.5 acres) severance of an adjacent privately owned farm property, transferring additional hardwood and pine plantation forests to the HCA with the understanding the lands are to be managed in a fashion that ensures the natural features are protected with recreational trails being the only permitted development. The final purchase was completed with an effective date of January 1, 2016 and included the original footprint of Westfield Village property as well as the assets and operations of the Village. Land acquired since 2005 Master Plan is shown in Figure 4. The mapping database at the City of Hamilton may need to be updated to reflect the new land acquisition, for example, the shaded area shown in Figure 5 will need to be revised.

Figure 4. Land Acquisition



Source: HCA. Green Area Represents land acquired since the 2005 Master Plan.

4.3 Planning and Development Controls

Westfield is located in part of lots 14,15,16,17 and 18, Concession 5 in the Town of Flamborough, which is now part of the City of Hamilton. The municipal address is 1049 Kirkwall Road.

The Rural Hamilton Official Plan (Schedules A and B) designates these lands as Protected Countryside in the Greenbelt Plan, and as Core Areas in the Greenbelt Natural Heritage System. Provincial policies for these lands are in place for protection of natural features, water features and their associated functions. New development or site alteration is regulated by these policies. The City of Hamilton may require an Environmental Impact Statement (EIS) which evaluates the potential impacts of any proposed new development, site alteration, or tree removal. Any new buildings or structures proposed for areas outside of the P4 zone shown on Figure 5, may require approval by the City.

City of Hamilton also enforces Designation By-Law Number 02-270 which protects property and the regulated heritage permit process under the Ontario Heritage Act.

The City of Hamilton Zoning boundaries for Westfield are shown on Figure 5 and are as follows:

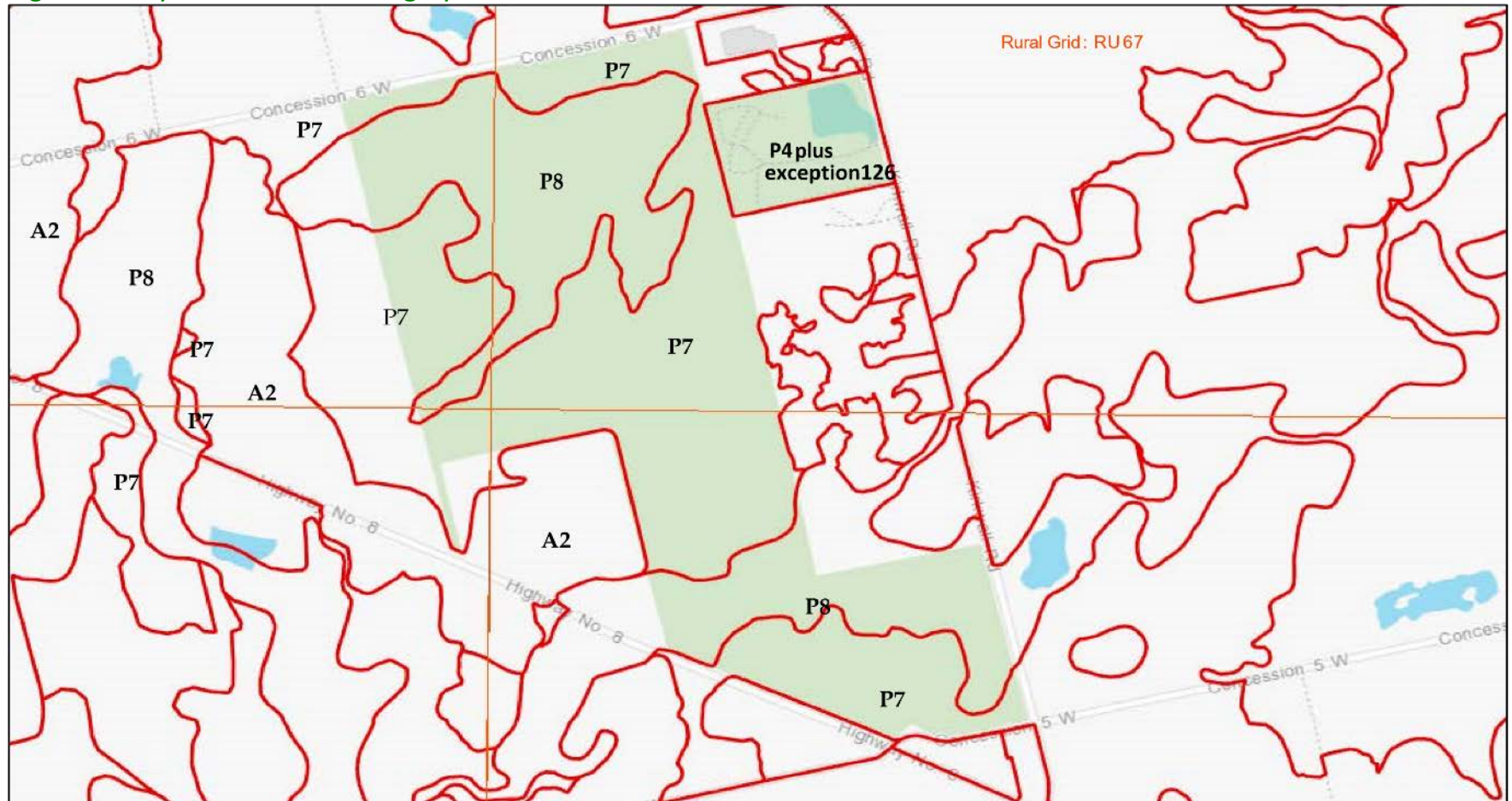
- City of Hamilton comprehensive zoning for these lands is “Open Space (P4)” “Rural (A2)” and “Conservation/Hazard Land-Rural (P7, P8).”
- The Open Space (P4) Zone encompasses the north east portion of the conservation area which includes the main entrance, parking areas, and heritage village identified on Map 7 in *Appendix 1*. A zoning special exception is in place for the heritage village area permitting museum use.
- The Rural (A2) Zone is on a portion of the newly acquired land parcels to the west of the village. Agricultural and accessory agricultural uses are permitted.
- The Conservation/Hazard Land – Rural (P7) Zone applies to a large portion of the lands to the west of the village, allowing for conservation, agriculture and passive recreation uses.
- The Conservation/Hazard Land – Rural (P8) Zone applies to all lands identified as Provincially Significant Wetland.

The zoning regulations prescribe setbacks for buildings and parking areas, and the wetland areas as mapped by the Grand River Conservation Authority (see Figure 5.) restricts development.

The Grand River Conservation Authority and City of Hamilton have been consulted and provided comment in the creation of this Master Plan



Figure 5: City of Hamilton Zoning By-Law 05-200, Schedule 'A'



October 4, 2017

- | | |
|--------------------|--------------------------------------|
| Rural Grid | City Boundary |
| Ward Boundary | Council Approved - Zoning Boundaries |
| Community Boundary | Zoning Boundaries |

1:18,056

0 0.15 0.3 0.6 mi

0 0.175 0.35 0.7 km

City of Hamilton
City of Hamilton - Web GIS Framework

The City of Hamilton is not liable for any damages resulting from the use of, or reliance on, the information contained herein. This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes.

4.4 Buildings

Westfield currently includes a number of heritage designated, non-designated but historic, and reconstructed/new buildings and structures as shown on Map 5 in *Appendix 1*. A number of the current buildings have been relocated here from their original locations. Several were within the current City of Hamilton area, several from Brant County and the rest from other southern Ontario counties. New structures have been built on site such as the Ironwood Hall, covered bridge, bandstand, storage buildings and others.

An “Inventory of Heritage Structures, An Annotated & Pictorial Review of their Existing Condition” was prepared in 1996 by Frank H. Burcher and Peter John Stokes, Consulting and Restoration Architects. Other structures have been added to the site since this report and the 2005 Master Plan were prepared. Structures currently on site that are not included in this inventory report include: Admissions Kiosk; Bandstand; Bee House; Covered Bridge; TH&B Caboose; TH&B Locomotive; Gates of Time; Greenhouse; Hardware Store; Planing Mill; Pumphouse; Queen’s Rangers’ Cabin; Sugar Shack; Front Gate Tollgate; Public Washrooms; and Westbrook House.

It is recommended that this study be updated as noted in Section 3.4 item .2.

4.5 Heritage Designation at Westfield

The Ontario Heritage Act enables the City of Hamilton to protect and manage Ontario’s cultural heritage resources. Part IV of the Act provides for municipal designation of individual properties as having cultural heritage value. Properties are designated by a municipal by-law, with reasons for designation or a description of heritage attributes which must be retained to conserve the cultural heritage value. Heritage property designation serves to: recognize the importance of a property to the community; identify and protect the property’s cultural heritage value; encourage good stewardship and conservation; and promote knowledge and understanding about the property and the development of the community. *Appendix 9* shows Westfield’s heritage designation listing with the City of Hamilton. Heritage permits may be required by the City of Hamilton prior to alteration of the designated heritage structures as per the Ontario Heritage Act.

Westfield Heritage Village contains buildings with cultural heritage value and eight buildings with heritage designation by the City of Hamilton under the Ontario Heritage Act. These buildings are considered to be of historic and architectural value or interest as examples of rural, vernacular, building construction primarily associated with early Euro-Canadian settlers. Valued associations include their rural craft traditions, use of building materials, construction techniques and settlement activities. These activities include farming, house building, rural commerce and industry, religious worship, and transportation.

The eight designated buildings, including all facades, entranceways, porches, windows, chimneys and roofs, together with construction materials and building techniques are as follows:

1. The Queen’s Rangers (Settler’s) Cabin: a circa 1793 single storey and a half, side gable, squared White Oak log structure.
2. The Bamberger House: a circa 1820, two storey, side gable, Pine log house.

3. The Blacksmith House: a circa 1828, single storey and a half, side gable, round log structure.
4. The Misener House: an 1832, single storey and a half, side gable, timber frame house clad in clapboard.
5. The Marr Cabinet Maker's Shop: a circa 1840, single storey and a half, front gable, timber frame barn and carpentry workshop clad in board-and-batten.
6. The McRobert's Dry Goods Store: an 1850, storey and a half, red-brick, commercial building with boom-town front with pitch roof.
7. The Mountsberg Episcopal Methodist Church: an 1854, single storey, timber frame church clad in clapboard.
8. The Jerseyville Railway Station: an 1896, single storey, timber frame, board-and-batten clad structure.



The designated buildings are shown on the Building Map, Map 5 in *Appendix 1*.

4.6 Cultural Heritage Features

The City of Hamilton has mapping of two historic farmsteads on the property that belonged to “A. Smith” and “John Cairns”. HCA shall follow up with the City on this information when preparing conservation management plans for these cultural heritage features.

There are no identified archaeological sites on the property. However archaeological screening should be considered with any new development project contemplated for the property. The property meets criteria of the City of Hamilton for archaeological potential and it would be prudent to conduct a Stage 1 archaeological assessment to help inform future management decisions.

4.7 Natural Areas

The natural areas of the conservation area are comprised of a variety of deciduous and coniferous plant species including natural deciduous forest, alvar communities, planted coniferous forests, open pasture, and localized wetlands.

The natural deciduous forest has substantial areas that were, and remain, uncleared due to the thin soils over bedrock. The forest composition includes major species such as Sugar Maple, Oak, Hickory, White Ash, and White Pine. The stands vary in age and a significant understory exists consisting of Prickly Ash, Buckthorn, Maple and Hawthorn.

There are alvar communities located in the conservation area which are locally significant because they represent community types uncommon in the Hamilton area. Further investigations are planned

to study and manage these areas.

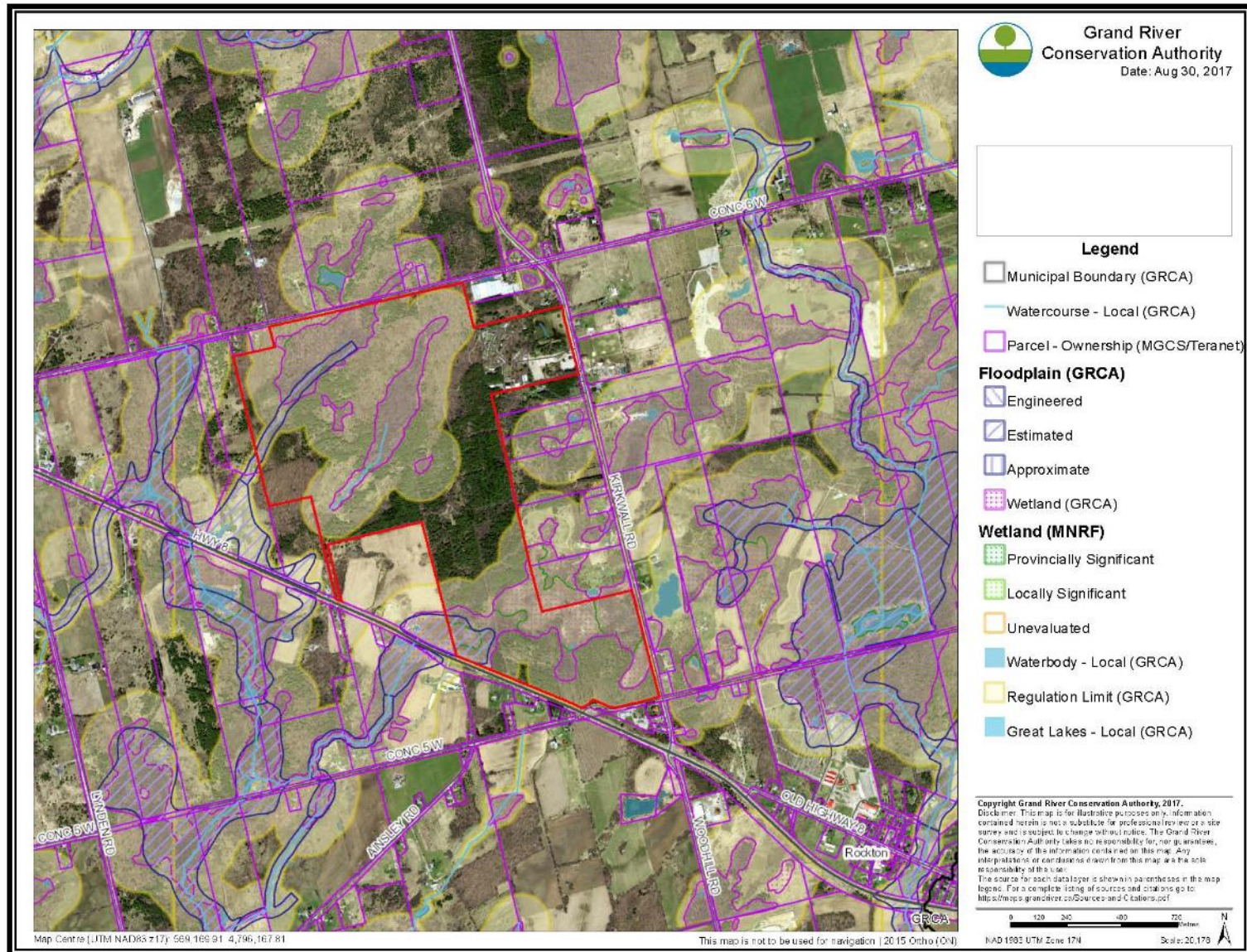
The planted coniferous forests are located primarily in the southern and eastern portions of the property. These stands are approximately 60 years of age and were planted on abandoned pastures. The predominant species are White, Scot's and Red Pine and Eastern White Cedar with some Norway and White Spruce and Tamarack. The HCA has a Managed Forest Plan (under MNRF, MTIP), in place for these stands, recommendations from this plan are noted in *Appendix 8*.

Former open pasture areas are gradually succeeding and provide a pleasant and enjoyable diversity to the forested areas. Some of the open areas offer a diversity of habitat types and provide suitable locations for activity and interpretive sites. Some areas may be allowed to continue to regenerate and revert back to forest cover. Some areas may be kept as grasslands through selected management techniques (vegetation removals, controlled burns etc.) to sustain wildlife habitat.

The conservation area also has localized wetlands, shown on Map 4 in *Appendix 1*. The wetland types include pond, marsh, wet meadow, and swamp. They are recharged by intermittent surface runoff and possibly some underground water percolation. The site does not have significant water features such as streams and natural ponds, and there are some constructed ponds located within the property.



Figure 6. GRCA Wetland Areas Map



Map Source: Grand River Conservation Authority

5.0 NATURAL AREAS INVENTORY

5.1 Physiography and Topography

This study area is located in the southwestern portion of the Flamborough Plain physiographic region. This large natural area encompasses the central portion of the extensive, gently-sloping bedrock plain stretching from Rockton, north to Kirkwall, and east to Westover.

The surface topography of this area is irregular due to the combination of the southwest-northeast trend of the bedrock ridges and creeks, and the west-northwest fabric of the overburden features. Elevations range from 253 to 270 m, except for the isolated drumlin in the northern end of study area that is some 20 m higher than the surrounding plain.

Dolostone of the Guelph Formation is at, or near, surface through much of the study area and forms a gently southwest-sloping plain. The northeast-trending bedrock ridges may be resistant reefal structures. Glacial striae have been noted on outcrops along Safari Road east of Kirkwood Road²⁰². Overburden is generally less than a metre deep and consists of sandy Wentworth Till. A well-formed drumlin is present in the northern part of this area, on the south side of Safari Road. Karrow and others have noted a wave-cut shoreline feature on the south face of this drumlin, and a borrow pit has exploited a beach gravel deposit on the northwestern end of this feature. The elevation of these shoreline features (275 m) indicates they were created by glacial Lake Whittlesey. A level area along the western boundary of the study area consists of an isolated glaciolacustrine sand plain. Other patches of sand and silt sediments may be present.

5.2 Soil Composition

Well-drained Farmington loam soils are present on the shallow bedrock throughout this site. Well-drained Guelph loam has developed on the drumlin and on other drift-covered knolls. A variety of soil series (Tuscola, Toledo, Vineland Beverly, and Colwood) have developed on the patches of shallow, silty to sandy, poorly- to imperfectly-drained substrates.



5.3 Hydrology and Surface Drainage

This area is located in the headwaters of Fairchild Creek which is a tributary of the Grand River. The small pockets of wetland help maintain base flow in the creeks⁴⁵⁹. Two small intermittent tributaries exist on the Westfield property one in the central portion drains from a small wetland pond flowing in a bedrock lined channel about 240m where it disappears into a sinkhole adjacent to the Chinquapin Oak Trail. The other tributary drains the western portion of the property it starts just upstream of Conc. 6w and flows southwest through the wetland area to a pond in the southwest corner of the property from there it flows south east until it exits the property by flowing under Hwy 8.

Water wells in the vicinity tap a bedrock aquifer found at 12 to 20 m depth in the northern portion, and 6 to 9 m depth in the southern portion. A few wells encountered only sulphur water. The groundwater elevation (250 to 268 m) slopes southwesterly, indicating that the direction of groundwater movement is coincident with that of the surface water drainage. As elsewhere in the Flamborough Plain region, the bedrock surface appears to be generally impermeable; however, groundwater recharge and/or discharge may be occurring along fracture zones. Because of the shallow soils, the bedrock aquifer is potentially susceptible to contamination

5.4 Biophysical Inventory Methodology

Field surveys were conducted at the Westfield property over two years, 2016 and 2017. The entire conservation area was surveyed for flora, breeding birds and fauna as noted in Table 7. Ecological Land Classification was completed across the entire property and is shown on Map 1, in *Appendix 1*. Species lists are included in *Appendix 10*.

Table 7 Summary of Ecological Field Studies Completed at Westfield

Survey Type	Dates	
	2016	2017
Ecological land classification and floristic inventory	Sept 15, June 23, Aug 11, Aug 12, Sept 12, Oct 14, Sept 19, Sept 30, Nov 1, Nov 2	June 26, June 27, July 18, July 17, Sept 1, Oct 18, Nov 23, Nov 29
Breeding bird survey (5am-10 am)	May 27 and June 17	June 1 and June 20
Spring Botanical survey	May 3	April 28
Whip-poor-will and Common nighthawk survey (8:30-10 pm)	—	June 14
Alvar specific flora survey	—	June 8
Bats	Throughout June, July and August by the MNRF in the village	
Mammals, snakes, frogs and butterflies	Recorded when encountered during all visits	

5.5 Ecological Land Classification

The Ecological Land Classification (ELC) system for Ontario was used to describe the vegetation communities at Westfield. Staff conducted multi-season inventories of the property in 2016 and 2017. Details on the canopy, sub canopy, shrub and ground layers of each vegetation community were

recorded. The pine plantations were surveyed in 2016 by the contract forester for the Managed Forest Plan. The information recorded by the forester was converted to ELC codes and used to map and describe the vegetation in this area. Vegetation community boundaries were determined using air photo analysis and further refined in the field.

5.6 Flora/ Botanical Inventory

Botanical inventories were conducted as a part of the Ecological Land Classification surveys of the property. Specific floristic inventories occurred in the spring over the whole property looking specifically for spring ephemerals (early spring flowers) as these can die back throughout the summer and not be identified later in the season. In addition the alvar was visited specifically in June again looking for specific species in this habitat type. Species nomenclature is based on the Ministry of Natural Resources and Forestry “Southern Ontario Vascular Plant Species List-3rd Edition” (Bradley 2013). Species and community ranks were determined provincially by the Ministry of Natural Resources and Forestry Natural Heritage Information Center Database (Sfranks) and locally via the Hamilton Natural Areas Inventory (Schwetz 2014).

5.7 Wildlife Inventory

No specific surveys were conducted for wildlife on the property. All wildlife encounters were incidental while conducting other aspects of field work. These surveys involved general coverage recording all species observations and signs (e.g. tracks/trails, scat, and burrows, dens, browse and vocalizations). The exception were the bat surveys conducted in 2016 and 2017 by the MNRF science branch within the heritage village at Westfield. A summary of the findings is in *Appendix 10*. No frog call surveys were conducted on this property despite the occurrence of wetlands. This is due to the inaccessibility of the property for evening frog call surveys. All amphibians encountered during other surveys were recorded.

5.8 Breeding Bird Survey

These surveys were completed between 5am and 10 am, with two visits between May 24th and July 10th, 2017. The methodology follows the Ontario Breeding Bird Atlas (ref.), with all species recoded as possible, probable or confirmed depending on the level of breeding activity observed.

5.9 Vegetation Communities Inventory

Map 1 in *Appendix 1* shows the Ecological Land Classification of vegetation communities for Westfield. A summary of the vegetation communities is included below for reference with the mapping.

.1 Anthropogenic (A)

This is an area of the property that is an old junk pile. There are pieces of scrap metal and cardboard. HCA has slowly been cleaning up this junk pile.

.2 Coniferous forest

.1 Dry-Fresh White Pine Coniferous Plantation (FOCM 6-1)

This type of plantation occurs throughout the property. It was planted between 30 and 40 years ago. The canopy is a mixture of White pine and deciduous species such as Ironwood and Sugar maple. The canopy cover for this community is between 40 and 60 percent. The abundance of White pine is variable with some plantations more dense than others. Trembling aspen, Common buckthorn and Gray dogwood occurred in the shrub and sub canopy layers. Soil samples were not taken in every area of plantation, but where they were taken it was silty clay and bedrock occurs 37 cm below the surface. It is a rapidly draining and dry soil. Invasive species are relatively abundant and there are well defined trails running through the site.

.2 Dry-Fresh Red Pine Coniferous Plantation (FOCM 6-2)

The northern polygon in this community is dominated by Red pine in the canopy. There is a large amount of regeneration of deciduous species such as Black cherry, American beech, Sugar maple and White elm. The understory is dominated by Common buckthorn. Fragrant sumac and Orange-fruited horse gentian were also observed. The soil is a combination of silty clay loam and silty clay and the soil moisture is fresh.

There is evidence of Red pine decline and blow down which has created canopy gaps. There is a high abundance of invasive species primarily Common buckthorn and Garlic mustard. There are a few small trails throughout the community. The southern polygon in this community is an unhealthy Red pine plantation with dead and dying Red pine. The canopy cover is limited and there is a lot of undergrowth.



Ironwood and Red oak are two of the species in the sub-canopy and Common buckthorn dominates the shrub layer. Red raspberry and Goldenrod were common in the understory. There was an abundance of downed woody debris mostly from fallen pines.

This community was harvested in 2018 to remove the diseased trees and promote the regeneration of deciduous species. There is also an abundance of Common buckthorn in this section of the community.

.3 Dry-fresh Scots Pine Coniferous Plantation (FOCM 6-3)

This community occurs in two polygons and is dominated by Scots pine in the canopy and sub-canopy. There are some large deciduous trees scattered in these polygons of Sugar maple, Shagbark hickory, White ash and White elm. Gray dogwood is the dominant shrub with Red-osier dogwood, Glossy buckthorn, Prickly ash and Common buckthorn occurring frequently. Goldenrod and Wild bergamot are the dominant forbs in the understory.

This community appears to be dry and is situated upland. The Scots pine was planted at some point and is not native to Ontario. Common buckthorn is common in this community. There is moderate noise pollution from nearby Highway 8.

.3 Deciduous Forest

.1 Dry-Fresh Sugar Maple Oak Deciduous Forest (FODM 5-3)

This community is dominated by Sugar maple with a variety of Oak species including Chinquapin oak. The sub-canopy is dominated by Sugar maple and Ironwood with Nannyberry, Prickly ash and Arrowwood in the understory. There is a high species richness in the ground layer. Species recorded with high coefficient of conservatism include Black maple, Downy arrowwood, Orange-fruited Horse gentian and Poke milkweed.

There were few invasive species observed during the ELC survey. There is some evidence of recreational use with a well-defined trail and a hunting stand. The forest is dominated by young trees which suggests livestock grazing or previous logging. The mature trees appear to be open grown which aligns with past management. The soil is very shallow (~15cm) dry loam with small patches of exposed bedrock.

.2 Dry-Fresh Sugar Maple Ironwood Deciduous Forest (FODM 5-4)

This is a young forest with poor growing conditions. The trees are young in age with very few large trees. The soil is shallow as with much of the Westfield site and exposed bedrock is evident in a number of areas. The canopy consists of sugar maple and Ironwood with a moderate mixing of white pine and black cherry. The shrub and ground cover layers were sparse and the white ash regeneration appeared to be grazed by deer.

.3 Dry-Fresh Sugar Maple Hardwood Calcareous Shallow Deciduous Forest (FODR1-1)

This community is dominated by Sugar maple with a diversity of other species, including Chinquapin oak in the canopy. Ironwood is dominant in the sub-canopy and Prickly ash is dominant in the understory. There is a high species richness in the ground layer. The soil is very shallow (~3 cm) with large patches of exposed bedrock and fissures. There is a low abundance of invasive species. This community appears to have been grazed by livestock in the past due to the abundance of Ironwood which cattle do not eat. It also appears to have been logged in the past due to the mid-age status of the canopy and no very large trees.

.4 Hedgerows (H)

.1 Hedgerow 1, 2 and 3

These are deciduous hedgerows composed of Bur oak, Shagbark hickory, Red oak and Sugar maple with a shrub layer of Grey dogwood, hawthorn species, Common buckthorn, Muscle wood and Prickly ash



.5 Meadow Marsh

.1 Narrow-leaved Sedge Graminoid Mineral Meadow Marsh (MAMM 1-9)

This community is dominated by sedges and Canada rush. There are two polygons with this vegetation type, one of which is dominated by *Carex stricta*. The dominant sedge in the other polygon was not identified. There are green ash scattered in the community that are less than 10 metres in height. Boneset, Cardinal flower and Swamp milkweed were also present. The soil is a silty clay and bedrock is located 57 cm below the

surface. The soil is poorly drained and very moist. There is a low abundance of invasive plant species in this community. Emerald ash borer is present in a large percentage of the Green ash.

.2 Reed Canary Grass Graminoid Mineral Meadow Marsh (MAMM 1-3)

This community is dominated by Reed canary grass with scattered Green ash in the canopy. This community surrounds an open water area and is composed of wetland species. Some of the species recorded include Willow, Boneset, and Soft-stemmed bulrush. This community has a high abundance of invasive species. There is no evidence of human disturbance in the community.

.3 Cattail Mineral Shallow Meadow Marsh (MASM1-1)

A large marsh on the south east side of the property which is 1/2 on and 1/2 off the property. This community is not diverse and almost entirely common cattails. There are a few other species such as Boneset, Joe-pye-weed and Swamp milkweed. Phragmites has invaded the wetland adjacent to Kirkwall Road. This is a small inclusion at the time of survey.

.6 Mixed Thicket Meadow (MEFM1)

This community was scattered through the south east side of the property. Brown knapweed and Goldenrod species dominated the ground cover. The canopy was open and included scattered Sugar maple, White pine and Basswood. Some areas have more shrubs like Grey dogwood.



.7 Dry-Fresh Calcareous Bedrock Forb Meadow (MEFR1)

This is a mixed community of grasses and forbs. Grasses and Goldenrods were intermixed with Beard tongue. Clumps of shrubs occur in scattered areas and included Fragrant sumac, Nanny berry and Grey dogwood. The ground layer was very diverse. The soils were silty clay and shallow, less than 15 cm deep.

.8 Rock Barren

.1 Calcareous Open Rock Barren Meadow (RBOA1)

This community is scattered throughout the Westfield property and mainly occurs as small open patches. There is a difference between some of the opening in the amount of Timothy grass in the ground cover and number of open patches. Fragrant sumac, Milk purslane, Silvery cinquefoil and a Panicum grass species were also present. There is a moderately high abundance of invasive species. Some openings have hawthorns or common buckthorn growing in them. The largest occurrence of this community occurs in the centre of the Westfield property and has been described as an Alvar. The soil is thin with exposed limestone sections.

.9 Shallow Submerged Aquatic (SAS)

.1 Stonewort Submerged Shallow Aquatic (SAS 1-3)

This inclusion is primarily a pond with the aquatic vegetation dominated by Stonewort with some Large-leaved pondweed. Beggar's tick, Boneset, and Reed canary grass are some of the species present along the edge of the pond. This pond has a berm along its edges.

.10 Deciduous Swamp

.1 Oak Mineral Deciduous Wwamp (SWDM1)

This community is dominated by Bur oak and Swamp white oak in the canopy with Green ash and White elm also occurring. Sedge species dominate the understory with Tussock sedge observed most frequently. The clay loam and clay soil is a very moist poorly drained. There is a low abundance of invasive species. The Green ash is dying from Emerald Ash Borer which has caused some blow down of dead trees. There is light noise at the north end from Concession 6 W.

.2 Green Ash Deciduous Swamp (SWDM 2-2)

Green ash is the dominant canopy and sub-canopy tree species in this swamp. Emerald ash borer is also widespread and there are many standing dead Green ash trees. White elm and Silver maple also occur but infrequently. The shrub layer covers more area than the canopy and is composed of Red-osier dogwood, Common buckthorn and Nannyberry. The ground cover is dominated by grass species. The soil has a texture of clay and silty clay, it is very moist and poorly drained. This community appears to have been cleared or logged at some point. It is composed of younger trees with no oaks observed.



.3 Silver Maple Mineral Swamp (SWDM 3-2)

The Silver maple were scattered in the canopy intermixed with the occasional bur oak. Red osier dogwoods were in the shrub layer with a mixed ground cover of ferns, sedges and cattails.

.4 Poplar Mineral Deciduous Swamp (SWDM 4-5)

This was a small community at the transition from Silver maple to a dominate canopy of Poplar. The ground covers and shrub layers were similar.

.11 Thicket Swamp

.1 Red Osier Dogwood Mineral Deciduous Thicket Swamp (SWTM2-1)

This is a small community surrounded by other swamp types. It is dominated by Red osier dogwood with some canopy of Silver maple. This community also occurred as an inclusion in the Silver maple swamp to the north. Sedges were the dominate ground cover.

.12 Deciduous Thicket

.1 Dry-Fresh Gray Dogwood Deciduous Thicket (THDM 2-4)

This community is dominated by Gray dogwood and Common buckthorn which reach a height of 1 to 2 metres. The canopy cover is about 20 percent and is primarily comprised of White ash and Scot's pine. This community is fragmented and small and occurs close to Highway 8. The rapidly draining silty clay soil is shallow and bedrock is located 15 cm below the surface. The Scot's pine were planted at some point in the past and are not native to the area. There is a high abundance of other invasive species as well.

.2 Fresh-Moist Gray Dogwood Deciduous Thicket (THDM 5-2)

This community is dominated by Gray dogwood and to a lesser extent Red-osier dogwood and Common buckthorn. The canopy trees are scattered though out the community with a cover of approximately 25%. Green ash is the dominant species with White elm, Scots pine, Ironwood and Bur oak also present.

.13 Open Water (OAO)

This is an open water pond with a floor of bedrock. When this location was surveyed, the pond was completely dry. Reed canary grass and Swamp milkweed are two species that were present.

.14 Deciduous Woodland

.1 Black Walnut Deciduous Woodland (WODM 4-4)

This community is dominated by Black walnut in the canopy and sub-canopy with the odd Black cherry, White elm and White pine. The trees were planted at some point and occur in rows. The understory is a mixture of meadow species including Timothy grass, Wild bergamot and Clammy ground cherry. Fragrant sumac was also recorded in this community. Two inclusions were recorded with similar understory vegetation but very limited canopy cover. The clay soil is very shallow and bedrock is 10 cm below the surface. Exotic species were prevalent throughout the community. There is widespread gaps in the woodland canopy and faint trails.

.2 Dry-Fresh White Ash Deciduous Woodland (WODM 4-2)

This community has primarily White ash in the canopy which has a cover of approximately 50 percent. Gray dogwood is the dominant species in the shrub layer with Canada anemone, Bur oak, Goldenrod and sedges in the ground layer. There is some evidence of Emerald ash borer and a moderate abundance of invasive species, primarily Common buckthorn.

5.10 Flora Inventory

Over twenty-one survey dates staff identified 236 species of plants, 175 native plant species (74%) while 61 are non-native species (26%) and 38 species identified to genus only. The Hamilton NAI (HCA 2014) indicates that there are 1469 species of plants in the Hamilton-Wentworth jurisdiction. Plant species at Westfield represent 16% of that regional flora.

The Floristic Quality Index (FQI) and the Native Mean Coefficient of Conservatism (CC) have been calculated for the entire property. The CC is a measure of a species specificity of habitat requirements, with a coefficient of 0 indicating a plant tolerant of a wide range of conditions and 10 indicating a plant that has the most specific habitat requirements. FQI is a measure of vegetation quality and is based on both the habitat fidelity of each species and species richness. The FQI for Westfield Heritage Village

Conservation Area is 59.11 and the mean CC value is 4.47. These are considered moderate values for FQI and mean CC. in terms of biological diversity and ecological function.

5.11 Fauna Inventory

.1 Birds

Five surveys were conducted for breeding birds at the Westfield property between 2016 and 2017. This included one whip-poor-will and common nighthawk survey during the full moon in June (BSC, x). Fifty-five species of birds were identified during these surveys; these include breeding birds and incidental species (those seen in non-breeding season or as fly-overs). Of these species four, Eastern wood-pewee, Grasshopper sparrow, Red-headed woodpecker and Wood thrush are species at risk both federally and provincially. Provincially they are considered special concern species while federally Eastern wood-pewee and Grasshopper sparrow are classified as special concern, Red-headed woodpecker and Wood thrush are classified as threatened. All of these species except the Red-headed woodpecker (seen April 2017) are breeding on the property, whereas the Red-headed woodpecker was likely a migrant.

.2 Incidental Observations (Mammals and Lepidoptera)

As stated above no formal surveys were conducted for mammals or butterflies. General observations of these taxa include four species of butterfly and nine species of mammals. Of these the monarch butterfly and little brown bat are species at risk in Ontario.



.3 Herpetofauna

Frog call surveys are generally conducted at night starting ½ hour after sunset with listening stations created 300 m apart on wetland pockets. Westfield is a large site and largely inaccessible in spring for frog call surveys. These surveys were not conducted following the Marsh Monitoring Protocol. Surveys were incidental with six species recorded in this manner mainly around the wetlands on the eastern portion of the property. One snake species, the Eastern garter snake was also observed across the entire property.

5.12 Significant Ecological Features

.1 Natural Heritage Designations

.1 Hyde-Rockton-Beverly Complex Environmentally Significant Area (ESA)

The property lies within the Hyde –Rockton – Beverly Complex. This is 732 Hectares in size and contains a mix of vegetation including wetlands, forests, plantations, meadows and alvars. Almost half of this ESA is composed of coniferous plantations. Westfield makes up 28% of this area. This ESA was designated because it meets four of the 2003 ESA criteria including:

1. The area provides habitat for significant species
2. The area contains interior forest habitat
3. The area contains a high diversity of native plant species
4. The area contains a rare biotic community.

ESA are protected within the rural official plan for the City of Hamilton. No new development or site alterations are permitted within or adjacent to ESA's unless it can be shown, through an Environmental Impact Statement (EIS) that there will be no negative impacts on the ecological features or functions of the ESA.

.2 Sheffield Rockton Provincially Significant Wetland Complex

The Sheffield Rockton Wetland Complex also occurs in low spots across the property. This is a provincially significant Wetland Complex evaluated by the MNRF in 1988 and reconfirmed via air photos in 2012 using 2010 air photos. Wetland areas include silver and green ash swamps along with cattail marshes and swamp thickets. These wetlands are regulated by the Grand River Conservation Authority and development is not permitted within these features.

.3 Hamilton Conservation Authority Managed Forest Plan

HCA completed a managed forest plan for this property that was submitted to MNRF in July 2017. This is a 10 year plan that discusses the health of the plantations at Westfield and recommends a harvest regime for the pine plantations on the property. Recommendations from the plan are listed in *Appendix 8*.

5.13 Biophysical Inventory - Analysis

.1 Natural Heritage Information Centre Records

The Natural Heritage Information Centre (NHIC) is Ontario's data conservation centre which tracks biodiversity in the province. Species at risk records are maintained provincially and available as 1x1km grids across the province. The make a map tool was accessed for records of provincially significant plants, vegetation communities and all forms of wildlife on, and in the vicinity of the Subject Lands. The occurrence data is provided in 1 km area blocks, which overlap with areas outside the property. The search revealed four records, 3 of which were at least observed over 20 years ago (Table 8).

Table 8. NHIC Record of Species at Risk on or within 1 km of Westfield Heritage Village Conservation Area

Common name	Scientific name	Srank	SARO	COSEWIC	Date
Prairie warbler	<i>Setophaga discolor</i>	S3	NAR	NAR	1992
Blanding's turtle	<i>Emydoidea blandingii</i>	S3	THR	END	1996
Eastern milksnake	<i>Lampropeltis triangulum</i>	S4	NAR	SC	1986-?
Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	THR	THR	2003-06

The species listed in Table 8 have been well surveyed except for the Blanding's turtle. Turtles were not actively searched for in the wetlands at Westfield. The wetlands in the southern portion of the property could support Blanding's turtles and surveys should be conducted to confirm presence/absence of this species. It is likely if the other species in Table 8 occur on the property they would have been encountered during field surveys.

.2 Species at Risk and Locally Rare Species

Of the plant species recorded on the two properties through the 2016/2017 field surveys and the Natural Areas Inventory surveys from 2004. Only one provincially rare species was recorded. Field thistle (*Cirsium discolor*) was recorded in the alvar (RBOB1-2) mainly on the old Westfield property. This species is ranked as S3 in the province which means there are 80 or fewer populations in Ontario. This species is tracked by the NHIC and is also locally rare in the City of Hamilton. Staff will return to the alvar in 2018 to confirm that the identification is correct as this species can be confused with other native thistles. In addition six other plant species are considered locally rare. These include Cranesbill (*Geranium bicknellii*), Common juniper (*Juniperus communis*), Switch grass (*Panicum virgatum*), Marsh cinquefoil (*Potentilla palustris*), Early buttercup (*Ranunculus fascicularis*), and Fragrant sumac (*Rhus aromatica*). The majority of these species, are found in the open rock barrens. The marsh cinquefoil was found in the large marsh on the southern portion of the property, near highway 8. Four bird species recorded on the property are also considered species at risk or rare in the City of Hamilton. These include the following (Table 9):



Table 9: Bird Species at Risk or Rare in the City of Hamilton

Common name	Scientific name	City of Hamilton Status	SARO	COSEWIC
Eastern wood-pewee	<i>Contopus virens</i>	common	SC	SC
Grasshopper sparrow	<i>Ammodramus savannarum</i>	Uncommon	SC	SC
Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	Rare	THR	SC
Wood thrush	<i>Hylocichla mustelina</i>	Uncommon	THR	SC
Northern harrier	<i>Circus cyaneus</i>	rare	----	-----
Broad-winged hawk	<i>Buteo platypterus</i>	Rare	----	-----

The Eastern wood-pewee, Wood thrush, Broad-winged hawk and Red-headed woodpecker are forest interior species, noted within the forest and forested wetlands on the property. All except the Red-headed woodpecker would be considered as breeding on the property. The Grass-hopper sparrow and Northern harrier are field species and were recorded in the western most field on the property.

.3 Significant Wildlife Habitat

The significant Wildlife Habitat Technical manual (OMNR 2000) along with the Eco regional criteria tables for ecoregion 6E (OMNR 2015) were used to determine and define significant wildlife habitat (SWH) on the Westfield property. Significant wildlife habitat include broad categories of habitats for flora and fauna. SWH has been identified under the provincial policy statement for Ontario. No new development is allowed within identified portions of significant wildlife habitat unless there will be no negative impact to the form and function of this habitat type. The broad categories for significant wildlife habitat include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitats for species of conservation concern and animal movement corridors.

Seasonal concentration areas of animals are areas where wildlife species occur annually in aggregations (groups) at certain times of the year (MNR 2015). This can include single species concentrations or aggregations of multiple species. At Westfield there are two types of seasonal concentration areas. These include bat maternity colonies and snake hibernacula. The heritage buildings at Westfield have both little brown bat, big brown bat and small footed bat maternity colonies within them. These are places, generally in the upper floors of buildings where female bats congregate to have their young in the summer. The maternity roosts are used from mid-May to the end of July. It is likely there are maternity colonies within the wooded portions of Westfield but these have not been surveyed for.

Snake hibernacula also occur on the property. There are a number of rock piles throughout the property which are likely used by snakes for winter hibernation. Two Eastern garter snakes were observed in late October in a rock pile near the old homestead. Map 5 in *Appendix 1* shows the approximated location of the ruins sites of the old homestead. The rock pile should remain for use by the snakes for hibernation. A spring survey is recommended to confirm the number and diversity of snakes that use this area.

Rare vegetation communities often contain rare flora and fauna that are specific to the habitat features within these rare communities. These vegetation communities are ranked in a similar fashion to provincially rare species. A small alvar community is located within Westfield. Alvars support small remnant natural grasslands and savannah vegetation on very shallow soils over dolostone bedrock, the Flamborough Plain (Goodban 1995). These habitats are rare in Ontario. This particular alvar located at Westfield was identified by Anthony Goodban in his 1995 thesis entitled: "Alvar Vegetation on the Flamborough Plain: Ecological Features, Planning Issues and Conservation Recommendations." Previous to this these alvars had not been described in the literature. This vegetation community is degraded with the invasion of Common lilac, Common mullein, and Knapweed.

Habitat for species of conservation concern includes wildlife that are listed provincially as species of concern or are rare and declining. During the breeding bird survey a wide variety of bird species were recorded in the open field on the eastern most section of Westfield. Grasshopper sparrow, Northern harrier and Savannah sparrow were noted in this field habitat. This field has been abandoned for at least eleven years according to the 2007 air photos. As a result this field is considered Significant Wildlife Habitat for Open Country Bird Breeding Habitat.



Significant Wildlife Habitat discovered during these field investigations was mapped and taken into consideration with the development of the Master Plan zones noted in Section 3.6. Conservation Area Zones Map 4 in *Appendix 1* defines these areas as Nature Reserve (Significant Wildlife Habitat).

.4 Invasive Species at Westfield

The Westfield property has a diverse number of invasive plant species with 64 recorded during the botanical inventories. Invasive species are, “plants, animals, aquatic life and micro-organisms that outcompete native species when introduced outside of their natural environment and threaten Canada's ecosystems, economy and society. They can come from across the country or across the globe.” (GC, 2014). Most of the invasive plant species found at Westfield are not wide spread and are in low density in most locations. Of the 64 species there are some that are particularly pervasive, aggressive and persistent.

These are the species that have the highest impact on the biodiversity at Westfield. The majority of these species are not listed in HCA's top 10 invasive from HCA's Invasive Species Strategy (2016). The following invasive species have been found at Westfield:

1. Common buckthorn*
2. Black knapweed (alvar)*
4. Garlic mustard*
5. Thyme-leaved sandwort (alvar)
6. Orchard grass (alvar)
7. Teasel (alvar)
8. Hawkweed species (alvar)
9. Honey suckle species*
10. Common and Japanese lilac

11. Glossy buckthorn*
12. Common Mullein (alvar)
13. Mossy stonecrop (alvar)
14. Forsythia
15. Purple loosestrife (Wetlands)
16. Periwinkle
17. Phragmites*

* On HCA's top 10 Invasive Species List

See Section 7.2 for more information on Invasive Species Management



6.0 OVERALL SITE CONCEPT

6.1 Site Concept / Philosophy

Westfield is known for the heritage village and collection of heritage buildings on approximately 16 hectares in the northeast corner of the conservation area. The key focus of Westfield will always be the heritage village and protection of the natural areas at this conservation area. The HCA supports the long-term operation of the heritage village as a living history museum within the conservation area and will continue to provide opportunities for the public to explore and appreciate natural and cultural heritage at Westfield.

The main visitor entrance into the conservation area is from Kirkwall Road. This area will continue to serve as the staging area for all visitor activities which take place at this conservation area. The existing rental house located south of the gatehouse and parking lot provides some security to the site. However, this building and almost 2 acres of land takes up space in the parking areas that are strained to capacity and overflowing during special events. The HCA will need to carefully assess the parking capacity of the conservation area, the existing resources, and long-term strategies for visitor services, parking, and access to the conservation area in the capital development plan.

The HCA will continue to improve site accessibility at Westfield to provide an inclusive, welcoming and rewarding experience for the public, volunteers and staff regardless of their diversity of ability. Accessibility modifications will be implemented so as to produce the lowest impact to the heritage buildings. Alterations to designated heritage buildings will only proceed with a municipally issued heritage permit. HCA's public facilities, communications, policies and practices will meet or exceed legislated expectations in an honest effort to serve the best interests of the community.

The village buildings date from the late 1700's to the early 1900's. Their design, layout and scale limit options to retrofit them without compromising their structural and heritage integrity. Over the next ten years the HCA will find innovative strategies that remove physical and communication barriers and maximize the accessibility of the heritage buildings. The HCA's goal is to create barrier free access to the majority of the assets. When that access is not feasible, alternatives such as images, models or simulations, will be offered in order to share the value of the exhibits with as many people as possible.

It is the overall intent of the HCA to wisely manage the conservation area, and undertake supplementary management and operating plans and initiatives to support the goals and objectives of this Master Plan within the next ten years.

6.2 Heritage Village

There are a number of buildings and structures in the Village as shown on Map 5 and 6 in *Appendix 1*. This Master Plan sets out a limit of maximum development area for the heritage village, to allow for future long-term planning and development while protecting the natural resources on site.

The basic philosophy towards the restoration and development of the buildings in the village will be that every effort will be made to maintain authenticity in the appearance of the buildings and the time period they are being restored to. The HCA will adhere to regulatory conservation requirements for the heritage designated buildings, and best practices and procedures for the non-designated historic structures. It should be recognized that this desire to maintain authenticity might be affected by factors which include safety and Code requirements, availability of resources and budgetary constraints. The overriding consideration will be to maintain a visually accurate historic presentation of the buildings. It is accepted that buildings do not necessarily have to be restored to their “original” state since buildings do evolve over time. While authentic historic buildings are preferred, reproductions may have a legitimate place within the parameters of the village when an original building is not feasible. Reproductions must incorporate sound historic design and construction.

Westfield currently has eight heritage designated buildings as noted in Section 4.5. Heritage properties may have unique exemptions under the Ontario Building Code, subject to determination of the municipality’s chief building official. For any works to be done on the designated heritage buildings, the HCA will consult with the municipality.

Restoration of any heritage buildings shall follow the “Eight Guiding Principles in the Conservation of Built Heritage Properties” from the Ontario Ministry of Tourism, Culture and Sport 2007, or as updated. These guiding principles are based on international charters and provide the basis for all decisions concerning good practice in architectural conservation and are listed in *Appendix 3*. The HCA will also refer to other recognized sources such as Parks Canada “Standards and Guidelines for the Conservation of Historic Places in Canada” and may also consult with heritage experts as required.

The primary goal for the village in this Master Plan will be to achieve sustainable management and operation on a daily basis, while striking a balance between protecting the natural, built and cultural heritage features of the conservation area and providing visitors with appropriate, high quality, sustainable educational and recreational experiences.



6.3 Visitor / Orientation Centre

The HCA Board of Directors approved the concept of a Westfield Visitor / Orientation Centre with the support of the Hamilton Conservation Foundation (HCF) and staff, subject to further investigation of fundraising options, feasibility, costs, and operating costs and projected revenues.

An orientation centre is envisioned to provide additional public washrooms, an orientation and fee collection area, indoor presentation/meeting space open year round, and the ability to host events indoors in case of inclement weather.

Development of this facility will be completely dependent on funding and securing operational funds and building the fundraising case for support through undertaking the following steps:

- Creating a volunteer leadership team
- Cultivating major gift donors and prospects
- Cultivating government relations, awareness, and support
- Developing a major gifts strategy
- Engaging an architectural consultant to further scope plans
- Determine servicing feasibility and costs and
- Financial analysis of operating costs and projected revenues

6.4 Conservation Area Development

With the acquisition of new lands, as shown in Figure 4 an updated concept map has been prepared for this Master Plan to guide future development on the conservation area lands. See Site Concept Map 4 in *Appendix 1*. The concept map takes into account the natural areas inventory and current infrastructure on the property.

Conservation area development shown on the concept map falls within these five main categories:

- .1 Access zone improvements for access into the property at defined locations outside of the heritage village
- .2 An expanded recreational trail system, as noted in Section 6.2
- .3 A defined recreation zone in the conservation area natural lands, segregated from sensitive natural areas, for HCA approved day-use programs and activities.
- .4 A wildlife education area at the west end of the site adjacent to a significant, protected wildlife area. The primary focus of this area will be for education programs and approved HCA activities, and wildlife viewing from the recreational trail. Wildlife features such as nesting boxes, viewing platforms, etc. may be considered to support wildlife habitat and educational goals.
- .5 Improvement to the village area, as noted in Section 6.2



All proposed development of the conservation area must take into account the shallow bedrock on

site. Installations may be difficult and more expensive due to this factor than at other conservation areas.

The most significant issue related to existing and future development is the rural location and lack of municipal services as well as sensitive natural environment in some locations. The HCA will need to strategically plan for infrastructure expansion in compliance with local agencies. Sewage disposal is currently removed from the site via pump out truck. The potable water system is in need of review. Some electrical services on site have been buried to date; additional future servicing work is still required. This approach will be continued where electrical services are identified as desirable from a programming and operational perspective.

Improvements to the entrance area, parking lots, lighting, and landscaping have been implemented since the last Master Plan to address the demands of special events, buses and accessibility requirements. Refinements to the current design and layout will continue with a focus on public safety and accessibility.

This Master Plan supports development improvements to the conservation area operations and has defined areas for improvement on the Village Development Zone Map 6 in *Appendix 1*. Improvements to the “back of house” service areas for staff and volunteers are the focus of these improvements.

Two buildings for the heritage village have been carried over from the previous Master Plan and are included on the capital development priorities list. See Section 8.2 for more information on building relocation requests. They include:

- A Town Hall, ideally similar size of the church, which is intended to be used for additional indoor meeting space, artifacts display and washroom.
- A Fire Hall.

Relocation of other buildings may also be possible conditional on funding, as noted in Section 3.7. The City of Hamilton may also be able to provide HCA with a shortlist of potential structures that may become available for consideration.

While much of the needed expertise required to develop and operate the village is available through HCA staff and volunteers, the HCA will continue to source outside advice from experts in heritage conservation as needed. When new buildings are offered to or requested for the site, many factors need to be considered and shall include historic significance, programming opportunities and financial implications.

6.5 Marketing

There are many marketing and communications activities for Westfield provided by the HCA including promotion through print, on-air radio ads and on various social media platforms; distribution of brochures to tourism sites; and online promotion through the Westfield website. With the recent acquisition of additional property at this conservation area, there are new marketing opportunities for education, interpretation, and recreation at Westfield.

It is recommended that at a minimum, marketing objectives for Westfield include the following:

- Increase awareness of Westfield and its unique heritage product offerings.
- Sell Westfield's unique facilities and products into education, wedding, meetings, and corporate markets.
- Leverage tourism partnerships to attract and retain visitors from local, regional, provincial, national and international markets.
- Market Westfield as an affordable, quality, family day trip destination.
- Focus Westfield advertising and promotions into strategic media that will attract from identified target markets.



7.0 CONSERVATION AREA MANAGEMENT

7.1 Land and Water Management

Land and water management planning will be accomplished through adherence to the guidelines of the conservation area zones noted in this Master Plan, and through additional resource management plans developed by HCA as necessary during the life of this Master Plan.

All sewage from existing washrooms will continue to be disposed of in septic tank/tile field systems within these zones. Sewage from tanks will be removed from the conservation area for disposal. Waste consisting of natural materials will be reused or composted inside the conservation area where feasible and appropriate. Otherwise, all solid waste will be removed from the conservation area for recycling or disposal. No dams or weirs will be built in the conservation area.

Wherever possible, new development or redevelopment will be undertaken so as not to disrupt natural drainage. Zone resource management plans will seek to restore natural drainage where it has been disrupted by past or present development.

7.2 Vegetation Management

Where active management is required for a particular plant species, it will be accomplished through HCA acceptable zone resource management plan, and in accordance with policies of all governing agencies.

Forest plantations will be managed in accordance with the HCA approved forestry management plan for Westfield.

Additional non-native plant species will not be deliberately introduced into the conservation area. In this Master Plan “non-native” means species not native to Ontario as well as species native to Ontario but not to Westfield. If established non-native plant species threaten natural heritage values, a program for their eradication will be developed subject to specific guidelines noted in the natural heritage inventory of this Master Plan. Missing native species may be re-introduced, and existing populations replenished if feasible and acceptable to HCA.

In the biophysical inventory noted in Section 5.13, a number of invasive species that have the highest impact on species biodiversity at Westfield. Some of these species are specific to the alvar or meadow habitats. Some are not easily removed from a habitat once established such as Orchard grass. An invasive species management plan is recommended for Westfield to prioritize species to target for removal, preferred methods and prescriptive management for the species to be removed.

Vegetation may be mowed only:

- Along the conservation area boundary, where mowing would assist in clearer boundary identification.
- In the development zone of this Master Plan to support public usage of the open space, and only to the extent necessary.

- As required along roadways and recreational trails for safety.

Vegetation may be removed only:

- To enable resource management or facility development specifically authorized by this Master Plan or an approved zone resource management or other implementation plan.
- Where appropriate surveys/inventories have been completed to identify all vegative species present.
- To ensure public safety.
- In service easements i.e. Utility corridors, subject to specific service agreements.

Trees may not be cut for the purpose of providing firewood. Trees and brush cut in nature reserve and natural zones outside of the forest plantations will be left to deteriorate naturally as close as possible to where they have been felled, or if that is not feasible, may be used for firewood or wood chips in the conservation area.

Native insects and diseases affecting vegetation will be allowed to progress naturally, except where they threaten significant natural heritage values in nature reserve and natural zones, or significant aesthetic values in development zones. Non-native insects and diseases will be controlled where feasible. Where controls are undertaken, it will be directed as narrowly as possible to the specific insect or disease so as to have minimal effects on the surrounding environment. Biological controls will be used whenever possible.



Fires in the conservation area will be suppressed. This does not apply to fire pit areas and fires as permitted with the living history museum activities in the heritage village. Fire as a management tool may be considered.

Chemical fertilizers, herbicides, pesticides and suppressants will not be used for any vegetation management purpose except:

- Insect and disease control under the conditions set out in this Section of the Master Plan.
- Eradication of non-native species where it has been demonstrated other methods are not feasible.
- Control of Poison ivy in development zones.

7.3 Fish and Wildlife Management

Where active wildlife management is required in the conservation area, it will be accomplished through zone resource management plans, and in accordance with policies of all governing agencies including the HCA's Wildlife Management Strategy.

Non-native animal species will not be deliberately introduced to the conservation area, with the exception of animals brought into the heritage village area for educational and interpretive purposes. If already established non-native species threaten the conservation area values, the HCA shall assess feasible and practical means of addressing controls.

Animal populations, including invasive domestic animals, may be controlled when essential to protect human health and safety, natural heritage values, or the health of species outside of the conservation area. Conflicts between visitors and healthy native animals due to visitor behavior such as feeding and littering will not be considered as endangering human safety. When animal control is necessary, techniques will be used that have minimal effects on the rest of the conservation area's environment. Any trapping, or other control measures will be carried out directly by, or under the supervision of the HCA, as per the *HCA Wildlife Conflict Management Strategy*. The HCA will obtain authorization from governing agencies before undertaking any control or eradication of wildlife species. Specific wildlife management plans shall be developed as necessary to address issues.

The property does not contain any waters that would support a recreational or commercial fishery. As such, the conservation area is not open for angling or bait harvest. Where applicable on the property, HCA fisheries management will seek to maintain and enhance native, self-sustaining fish populations. Fisheries or wildlife research on the property will require approval from HCA staff ecologists, as well researchers will need to demonstrate they have as all other agency approvals before access will be granted.

All hunting and/or Firearm Discharge for the purpose of hunting is not permitted anywhere throughout the Westfield Heritage Village Conservation Area and future holdings of the HCA.

7.4 Cultural Heritage Management

A management plan is recommended for the cultural heritage features at Westfield. A cultural heritage conservation plan to include the remnant farm features, the heritage village, and continued use of the historic structures and landscape will help prioritize items for the HCA. The Ministry of Ontario Heritage has reference information on cultural heritage plans that may be helpful. Significant cultural heritage features will be protected from incompatible development in the conservation area. Incompatible resource uses and recreational activities will be restricted or prohibited where necessary to protect the cultural heritage resource.

Archaeological and historical artifacts may only be removed, and heritage landscapes altered, as part of HCA approved cultural heritage research or management projects. A Stage 1 archaeological assessment will help inform management, planning, and interpretation as well as prioritizing potential projects.

Management strategies for any archaeological sites found in the future may range from allowing the sites to remain without interference, to research, excavation, and rehabilitation. Protection and management will be undertaken in consultation with all governing agencies and first nations.

7.5 Conservation Area Operations

A supplemental operating plan for Westfield should be prepared once this master plan is adopted. The operating plan will allow for 7 days a week public access to the conservation area from sunrise to sunset which is consistent across all HCA Conservation Areas. Specific strategies for revenue collection from the heritage village will be explored within this operational model. Self-guided trail use and activities will be enhanced or developed for this Conservation Area. Individual volunteers and partner organizations may be involved in planning Conservation Area programs as approved by HCA.

The HCA may suspend operations of any facilities or services due to funding limitations, but in so doing will make best efforts that both heritage values and customer service standards are affected as little as possible.

New business practices may be introduced into the conservation area operations in accordance with HCA policy such as:

- Improving operating efficiency and controlling costs.
- Contracting out some operating functions.
- Improving customer service standards.

7.6 Education

Westfield will continue to offer a wide range of relevant, responsive, leading edge educational programs. Information, education, and outdoor recreation are the three main components of education in the conservation area. Education opportunities are intended to develop awareness and appreciation of Ontario's natural and cultural heritage, fostering a commitment to conserve heritage for all generations.



A more detailed management plan for the heritage village may help determine which educational programs are most appropriate in perpetuating cultural heritage values. Education programs are to be assessed with the conservation area zones outlined in this master plan. For example, in nature reserve zones public access may need to be limited; viewing decks, blinds, or outdoor display panels may need to be installed along trails or at specific locations to keep the public out of sensitive environmental areas.

7.7 Research

Research by qualified individuals that contributes to the knowledge of natural and cultural history and to environmental and recreational management will be encouraged.

All research projects will require authorization by the HCA.

7.8 Recreation

Entry to the conservation area will be controlled year round, and the HCA will collect entrance fees from visitors. Day use parking spaces are provided on a first come, first serve basis and visitors may be restricted from entering the conservation area when the parking areas are full.

The following motorized recreational activities will not be permitted in the conservation area:

- All-terrain vehicle use
- Motor bikes on trails
- Snowmobiling
- Unmanned recreational aerial vehicle / “drone” (UAV)

A long-term goal of this Master Plan is to provide visitors with appropriate, high quality, sustainable recreational experiences. Recreational opportunities are to be provided that are appropriate to the conservation area and Master Plan zones outlined in Section 3.6. Recreational areas for the conservation lands are identified on the Trail Master Plan (Map 5), and Site Concept Map (Map 6) in *Appendix 1*. See Section 10.2 for more information.

7.9 Partnerships

The HCA values the community support from businesses, service clubs, interested First Nations, and volunteer organizations that currently or could contribute in a variety of ways at Westfield. The HCA will continue to nurture existing support and will seek out new opportunities for partnerships. Westfield will pursue community partners which are appropriate for Westfield and ultimately its goals. These partners may be from cultural, educational, recreational, corporate or other sectors.



The HCA will continue to encourage and assist the growth and development of the Hamilton Conservation Foundation and the Friends of Westfield, important partners in implementing this Master Plan. Partnerships will also be explored with other agencies, community and interest groups, and the private sector. These partnerships will be essential to the achievement of the conservation area protection, heritage appreciation, and tourism objectives.

7.10 Volunteers

Westfield Heritage Village began as a volunteer endeavour in 1960 and continues to have very strong involvement. In recognition of the importance of the volunteer's contribution, the HCA is committed to providing a safe and supportive environment for volunteers where they are treated with dignity, respect and trust. Volunteers are a valuable bridge between the site and the community.

Westfield's volunteer program allows members of the community to participate in the programs and activities of Westfield. This program matches the needs and interests of individuals to those of the conservation area, and gives everyone the opportunity to develop new skills, be part of social gatherings, contribute talents and knowledge, and learn more about history. Key volunteer areas include maintenance workers, sewing committee, gardening, collections support, and parking and admissions. The volunteer program contributes to historical interpretation, buildings and grounds maintenance, restoration, collections, costuming, outreach and administrative assistance.

The Westfield volunteers are governed by the volunteer policies as outlined by the HCA. Volunteers are essential to achieving the goals and objectives for Westfield. The volunteer program shall be maintained and developed on an ongoing basis to support recruitment, orientation, training, supervision, health and safety instruction, evaluation and recognition. The volunteer program shall be considered in all business decisions made by HCA in the operation of this conservation area



7.11 Paid Staff

A supplemental operation plan is recommended to be developed by the HCA for Westfield once this Master Plan is adopted.

Westfield, similar to staffing at other conservation areas, includes full time permanent employees and a number of part time casual employees to undertake its operations.

In addition, staff from other departments in the HCA are involved in varying capacities with the management and operation of Westfield. Staff may also be involved in supervising the activities of outside consultants, partners, or contractors retained by the HCA for support services to Westfield.

The HCA is supportive of collaborative partnerships between paid staff and community stakeholders to achieve specific goals and objectives. Westfield is very much a community project with many partners. Stakeholders will continue to be sought to help Westfield achieve its goals.

8.0 FINANCIAL

8.1 Attendance and Revenue Forecasts

Attendance forecasts, and operating revenue and expenses for Westfield are listed in *Appendix 4 and 5*.

Visitation to Westfield has increased due to several contributing factors: population growth in the Greater Toronto area and within the Hamilton Region; greater awareness of the site; and word-of-mouth promotion about special events and programs. It is anticipated that new programs and events, more rentals, and strategic tourism marketing will help generate additional visits.

Westfield's financial success is expected to continue to rely on its events, with those relying to a large degree on the weather of the day. Revenues achieved through school programming are expected to remain solid and indications are that film production revenues will also remain strong.

8.2 Capital Projects

The capital development priorities list in *Appendix 2* provides preliminary estimates for the development envisioned in the master plan. A number of the capital projects are for improved operations while others are to round out the village environs. With many of the capital improvements there will be additional operational costs.

Major fundraising efforts will need to be initiated to support future capital development and investment at Westfield, in particular major capital items such as the Visitor / Orientation Centre.

Fundraising recommendations from a feasibility study conducted by HCA with outside consultants in 2015-2016 for significant capital investment for items such as a Visitor / Orientation Centre include:

- Before attempting a fundraising campaign, the project scope and probability of obtaining financing for significant capital projects at Westfield needs to be investigated by HCA.
- For major fundraising initiatives, a project champion or champions should be identified. Their role would be to identify and qualify new prospects, as well as cultivate promising individuals and organizations. If possible, an influential leader should be recruited to champion the effort.
- For building relocation requests, the proposed project should be appropriate for the Master



Plan Zones identified in Section 3.6 and support programs and services at Westfield, and a defined business case.

- The rationale for a capital project should flow out of a solid business case to support programs and services that achieve Westfield's goals and objectives.
- Existing donors and major prospects will need to be engaged to contribute to the financial support of Westfield.
- Government relations will need to be cultivated and nurtured as government funding opportunities are explored and sought out.
- A major gifts strategy will be required oriented towards lining up lead donations and other donations (investments).

There are always numerous capital projects under active consideration with many requiring various forms of fundraising. Capital projects should not be started until a long-term strategy with timelines and costs for each project are clearly stated and sufficient resources are available to complete them.



8.3 Funding Sources

As a living museum the operations required City of Hamilton support to reach a breakeven. As part of the agreement to purchase the Village property and operations it was stipulated that support from the City of Hamilton would continue at the same level, adjusted annually in the same percentage as other Boards and Agencies receive

Westfield generates revenue through admissions and services provided through public events, educational programs, group tours, facility rentals and special activities. New opportunities for increasing revenues are constantly being investigated.

Friends of Westfield Heritage Village Inc. generate funds, used mainly for capital development, through operation of the Village Gift Shop, applications for grants, donation requests and fundraisers. The success of this volunteer organization is crucial to the ongoing capital development program. Westfield must continue to encourage and support the efforts of this valuable resource.

The Kilmer Endowment and the Heritage Challenge Endowment provide financial support annually towards building maintenance, capital development and operations. While the amount annually depends on investment rates it is available in perpetuity. Increasing the amount of finances in endowments for Westfield should be a priority and a specific action plan developed.

The Hamilton Conservation Foundation also provides funding for specific projects. Financial donations directed to Westfield are processed through the Foundation. Professional support is provided from the Foundation for researching funding sources and grant applications. The City of Hamilton also offers financial incentives to support designated heritage properties, and HCA may be eligible for grants towards exterior restoration or maintenance of designated heritage buildings at Westfield.

Grants, sponsorship, corporate donations and private donations are acquired and are an important source of funding. There is good potential for increasing funding in this area. Donor recognition is a key element that needs to be sustained.

Though the operational expenditures have increased as the site continues to grow and expand, the percentage of revenues, generated from sources other than Levy, to operation expenditures has been steadily increasing since the site was re-opened by the HCA. The HCA's goal is to continue to increase this percentage and further reduce the reliance on General Levy for operational costs.

8.4 Business Model

A market assessment of Westfield was completed for the HCA in preparing a feasibility study for a Visitor/Orientation Centre. The following items from this study could influence a business model for Westfield:

- It is assumed over the life of this Master Plan that the Hamilton Conservation Authority will continue to own and manage Westfield with primary financial support from the City of Hamilton General Levy. It is also assumed that self-generated funds will continue to be required to sustain the current level of operations at Westfield.
- Over the next decade, economic growth in Canada and the Greater Toronto and Hamilton Region will be slow to moderate. This will imply a continuation of existing patterns of expenditure and tourism, without precipitous increases or declines.
- In reviewing similar operations ('benchmarking'), it has been observed that the public is drawn to a historical village or natural park area by the activities and events, particularly when these activities and events are recommended by family and friends. The VFR market (visiting friends and relatives), according to the local tourism industry, is expected to continue to be the main reason for visitor trips to the area over the life of this Master Plan. See the tourism region data in *Appendix 4*.



Westfield has succeeded in becoming an affordable, quality, cultural, historical and educational destination for resident families, their visiting friends and relatives, and tourists. Its product has multi-market appeal and penetration, and operates on a strategic principle of “user pay” to break even or realize net operational revenue for recreational endeavours.

Increasing revenues at Westfield will require the HCA to refine their marketing, business, and development strategies to:

- Offer more programs and events during prime and shoulder seasons in keeping with the goal of Westfield being “open” to the public year round, and to drive greater awareness, attendance, reputation, revenues, and visitor satisfaction.
- Continue to attract the more lucrative corporate, group, and third-party event markets with competitive features and services.
- Conduct on-site and market research campaigns to assess current programs, marketing, and to measure customer service and satisfaction.
- Continue to explore pilot projects and best practices as means of growing revenues and operating effectively.
- Provide visitors with opportunities to spend more money when on site.
- Build on the successes of the school group program by increasing awareness, attendance, and sales in the education market. In addition, continue to develop education partnerships so that Westfield’s education programs remain relevant, responsive, leading-edge and meet curriculum requirements.
- Continue to invest in the facilities and new technology where feasible to improve operational efficiency and enhance the visitor experience.
- Continue to leverage tourism industry partnerships, public relations, community outreach, and corporate sponsorship.
- The HCA recognizes the early Euro-Canadian use of the site, including the Smith Farmhouse, in the Cultural Heritage Zones of this Master Plan, and will explore adding programs that tell stories in Canadian History before or at the time of European contact, as well as the story of First Nations that inhabited this area in support of the goals and objectives of this Master Plan.

Cost recovery is a prime requirement for all programs delivered. In the development of programs the following factors will be taken into account: anticipated attendance, income sources, market, volunteer resources, HCA staffing requirements, advertising, insurance, administration, operation costs and maintenance expenses.

Concepts embodied in this Master Plan are to be weighed against the marketing demands for increased performance, attendance, programming, market penetration, awareness and ultimately financial return.

9.0 COLLECTIONS MANAGEMENT

9.1 Heritage Conservation

The HCA intends to provide opportunities for the public to explore and appreciate Westfield's natural and cultural heritage. To ensure the long-term preservation of the historic buildings and artifacts on the property, conservation is significant to support the goals and objectives for Westfield. The City of Hamilton is supportive of this direction to continue ongoing maintenance of Westfield's built heritage resources and artifact collection.

The heritage resources at Westfield are not only to be preserved for future generations, but be fully utilized for current education, interpretation and research. The HCA will continue to protect and manage the designated heritage structures on site as noted in Section 4.5. An updated inventory of the structures and heritage structures is recommended, as noted in Section 3.4.2. The HCA is committed to fulfilling its conservation responsibilities through the retention of qualified staff, support of ongoing training and research, and consultation with qualified experts when necessary.



In support of HCA's objective to provide visitors with a setting reflective of Southern Ontario (Upper Canada), the HCA will consult with staff at the City of Hamilton on the historic time periods to be represented at Westfield. This may be helpful for collections goals and when considering building donations.

The HCA is committed to maintaining its buildings as safe and functional environments for visitors, staff, the collection, and a variety of programs and activities. In meeting these standards at Westfield, emphasis will be placed on preserving the integrity of the period buildings on the property. Work on the period buildings will be assessed as to the potential impact on the character, function, and collection. Period buildings, particularly those containing artifacts, will be routinely monitored and assessed for conservation.

9.2 Artifact and Archival Collection

The HCA maintains an artifact and archival collection for Westfield consisting of more than 25,000 objects reflecting the social, cultural and material history of the area. The bulk of the collection dates from the late 18th to early 20th centuries and is strong in the areas of general store stock, transportation artifacts, domestic furnishings and equipment, and agricultural implements. The collection normally represents the types of material goods that would have been locally manufactured, routinely available or the product of local activity in Southern Ontario from the period 1790-1925. The strength of the collection lies in its general nature, being representative of the lives of working people.

The HCA intends to manage the collection according to current professional standards for preservation, documentation, research and use of the collection. Plans and policies for collection management will continue to be evaluated and improved upon by the HCA to ensure sustainable collections management and storage for Westfield.

9.3 Research

The HCA is committed to carrying out research that will promote accuracy in Westfield exhibitions, inform and give focus to collecting, and ensure relevance in education and public programs. Research will be carried out in a professional manner consistent with standard methodologies for referencing, citation and ethics. The products of research may include: written plans for education or public programs; the production of an exhibit; the publication of brochures, catalogues or journals; or the development of information sources for interpreters. Stage 1 archaeological assessments conducted at Westfield will also help inform future research and interpretation activities.

The HCA supports dissemination of original research through programming, exhibits, and publications to contribute to the historical knowledge of Southern Ontario.



10.0 PROGRAMMING

10.1 Education and Interpretation Programs

Westfield currently provides diverse and unique programs for a variety of audiences. The opportunities for programs are numerous as the site represents such a wide time frame and features so many different aspects of a community. Building on the success of current programming, new programs are always being investigated.

Program staff, both paid and unpaid, will receive training and support to effectively deliver informative and comprehensive programs. Interpreters may use objects from the programming collection or other approved reproductions for hands-on activities or demonstrations

The HCA will continue to deliver education and interpretation programs at Westfield that both support the goals and objectives of this Master Plan and help Westfield continue to engage with the community and visitors alike. The HCA will continue to support the future of education and programs at Westfield. Education programs are a significant revenue generator for Westfield as shown in *Appendix 4*. Schools, youth groups, and educational tours represent a steady and important market for Westfield. Students from Hamilton, Wellington, and Halton school boards take part in engaging, curriculum-based programs each year at Westfield. Adult education classes, and programs for new Canadians and English as a Second Language classes also make up a portion of the education programs. The education market is an important driver of public awareness, attendance, and new educational opportunities at Westfield.

Cost recovery is a prime requirement for all programs delivered. In the development of programs the following factors will be taken into account: anticipated attendance, income sources, market, volunteer resources, HCA staffing requirements, advertising, insurance, administration, operation costs and maintenance expenses.

.1 School Programs

All school programs provided by the HCA will be in accordance with the current curriculum guidelines of the Ministry of Education. Evaluations will be provided when requested by schools, so that information can be shared to help improve program delivery at Westfield.

.2 Public Programs

Public programs provided by the HCA will be delivered when the site is open to the general public, outside of special events. Public programs will aim to be both educational and enjoyable, fully utilizing the unique assets of the site.

.3 Special Events

The HCA supports offering a variety of special events throughout the year at Westfield to enhance community awareness of the site, increase revenues, and deliver new programs. Special events will be offered to appeal to diverse audiences, and be publicly accessible.



.4 Special Programs

The HCA supports offering special programs at Westfield to engage and meet the needs of a more diverse audience who may have special interests not met by special events or general public programming. These programs are intended for individuals and/or groups and may include activities such as family tours, workshops, lectures, film screenings, and corporate functions.

.5 Exhibits

The HCA supports offering exhibits at Westfield or at off-site locations where feasible. Exhibits shall be consistent with HCA's goals and objectives and be educational, informative, and engaging.

.6 Outreach

The HCA supports opportunities for staff and volunteers to provide and participate in educational outreach activities consistent with the goals and objectives of the HCA.

.7 Multi-Media

The HCA will make every effort to improve access to Westfield for visitors, and provide opportunities for visitors to access information if they are restricted by age, location, or disability. Multi-media information may include, but not be limited to, photographs, movies or videos produced at Westfield.

.8 Evaluation

The HCA may conduct evaluations to assess quality, effectiveness, cost, staff and volunteer resources, funding and demand for each program, special event, exhibit, and outreach. Evaluations may also be provided when requested by schools, so that information can be shared to help improve school program delivery at Westfield.



10.2 Recreation

The new Trail Master Plan for Westfield provides for the creation of 2.25 Km of new recreational trails to be accessed from the existing trail system on site. General parking for all recreational use is proposed in the Development Zone shown on Map 6. These new trails, as well as the existing recreational trails are intended to be multi-use and provide opportunities for hiking, nature appreciation, cross-country skiing, and horseback riding or horse-drawn sleigh/carriage activities as part of an HCA approved program. Bicycling is to be reviewed with other recreational activities and rules may need to be developed: for example, cyclist to walk bicycles through the heritage village to access trails. A main trail staging area / trail support centre is planned for the trail node near the cultural heritage ruins sites (old farmstead).

The Site Concept (Map 4), identifies new recreation areas for the conservation lands:

- A wildlife education area at the west end of the property adjacent to significant wildlife habitat. This area is intended for wildlife viewing and education. To conserve the wildlife areas the HCA may restrict visitor access, establish no-dogs allowed zones, or close off areas to the public at various times.
- A recreation zone to be established in the area recently disturbed by forestry and logging operations. This area may be suitable, subject to further management review, for HCA approved activities such as day-use outdoor recreation, picnicking, potential off-leash dog area, special events, and HCA approved recreational overnight, (i.e., camping with a school or community program, such as Scouts and Guides) in the spring, summer and fall season.
- One recreation access zones for both service access and permitted recreational access into the conservation area. This access point will be kept gated when not in use.



10.3 Special Events and Programming

Since its inception, Westfield has presented a wide range of public programs and special events that are enjoyed by visitors of all ages and backgrounds. These programs are evaluated on a regular basis and new programs are regularly introduced. The key to Westfield's programming is to ensure that the product is relevant, creative, unique and fun.

The HCA supports offering public programs and special events that recognize and promote Westfield's goals and objectives and the conservation areas natural and cultural heritage.

When selecting public programs and special events to offer at Westfield, the following considerations shall guide the selection process:

- Does it meet the HCA's Vision and Mission and Westfield's goals and objectives?
- Will it appeal to the target audience?
- What are the available financial and human resources?
- Are there environmental impacts?
- Does it have educational and heritage importance?
- Are there public safety concerns?
- Is site security compromised?

- What artifact care is required?
- Is it financially viable?
- Are there business opportunities – partnerships, sponsors etc.?
- Can it complement the efforts of other sites in the HCA portfolio?



11.0 FACILITY RENTALS

Facility rentals generate significant revenues for Westfield Heritage Village. Wedding parties frequently use the site for the service, photographic opportunities, for the reception and more. Buildings are also used for business meetings, retreats and private functions such as anniversaries. Filming on site by television and movie companies has provided good revenue and excellent exposure to the site. Businesses also use the site for corporate Christmas parties and summer picnics. The unique nature of the site enhances these activities and offers another resource to the community. Strict procedures are adhered to which ensure the integrity of the site is not sacrificed.

Westfield will offer these services while continuing to develop new opportunities, enhancing the experience and increasing revenue potential.

11.1 Weddings

Westfield is an attractive location for weddings, and a number of options are provided for weddings at Westfield. The peaceful, one of a kind location is suitable for small to medium sized weddings with family and friends. Staff work with wedding parties to accommodate their requests while serving the public accessing the conservation area. Weddings will continue to be offered at Westfield, and wedding requirements will be considered when capital improvements are implemented.

Some of the options offered for weddings at Westfield include: use of the site for wedding photographs; use of the church, chapel and bandstand for ceremonies; hosting receptions in the Ironwood Hall; and assistance connecting with vendors for catering, music, ceremonies, horse and carriage service, antique car service, bar etc.

11.2 Rentals

Westfield provides a unique space as a backdrop to numerous rental activities. Currently the space is used for some of the following activities: group/wedding photographs; family gatherings and reunions; church picnics/services as well as meeting space for corporate and community groups. These activities will continually be evaluated as part of an overall marketing strategy during the life of this Master Plan.

11.3 Film and Photography

Westfield has been used for filming locations for more than three decades from small independent films up to major motion pictures. Major companies and small organizations have taken photographs for commercials and magazine covers and articles.

There are still many visitors coming to Westfield specifically because of The Sullivan Entertainment filming of Anne of Green Gables here in 1985 and the Murdoch Mysteries filming. Westfield shared their experience and knowledge of the film industry with the HCA when they became connected and both Westfield and the HCA continue to benefit from filming opportunities.

The HCA will continue to offer Westfield as a venue for filming and photography.



11.4 Groups

Each Year Westfield is the chosen location for groups such as bus tours, and art-focused clubs, to gather and experience a “Day in the Country”. These activities will continually be evaluated as part of an overall marketing strategy during the life of this Master Plan.



12.0 SUMMARY

12.1 Plan Review and Phasing

Westfield is a unique operation within the Hamilton Conservation Authority property portfolio. The HCA supports the long-term operation of the heritage village for visitors to continue to enjoy by appropriately protecting, preserving, restoring, and wisely managing the buildings, furnishings, artifacts, living history activities and natural areas.

It is the overall intent of the HCA to wisely manage the conservation area and undertake supplementary management and operating plans and initiatives to support the goals and objectives of this Master Plan within the next 10 years.



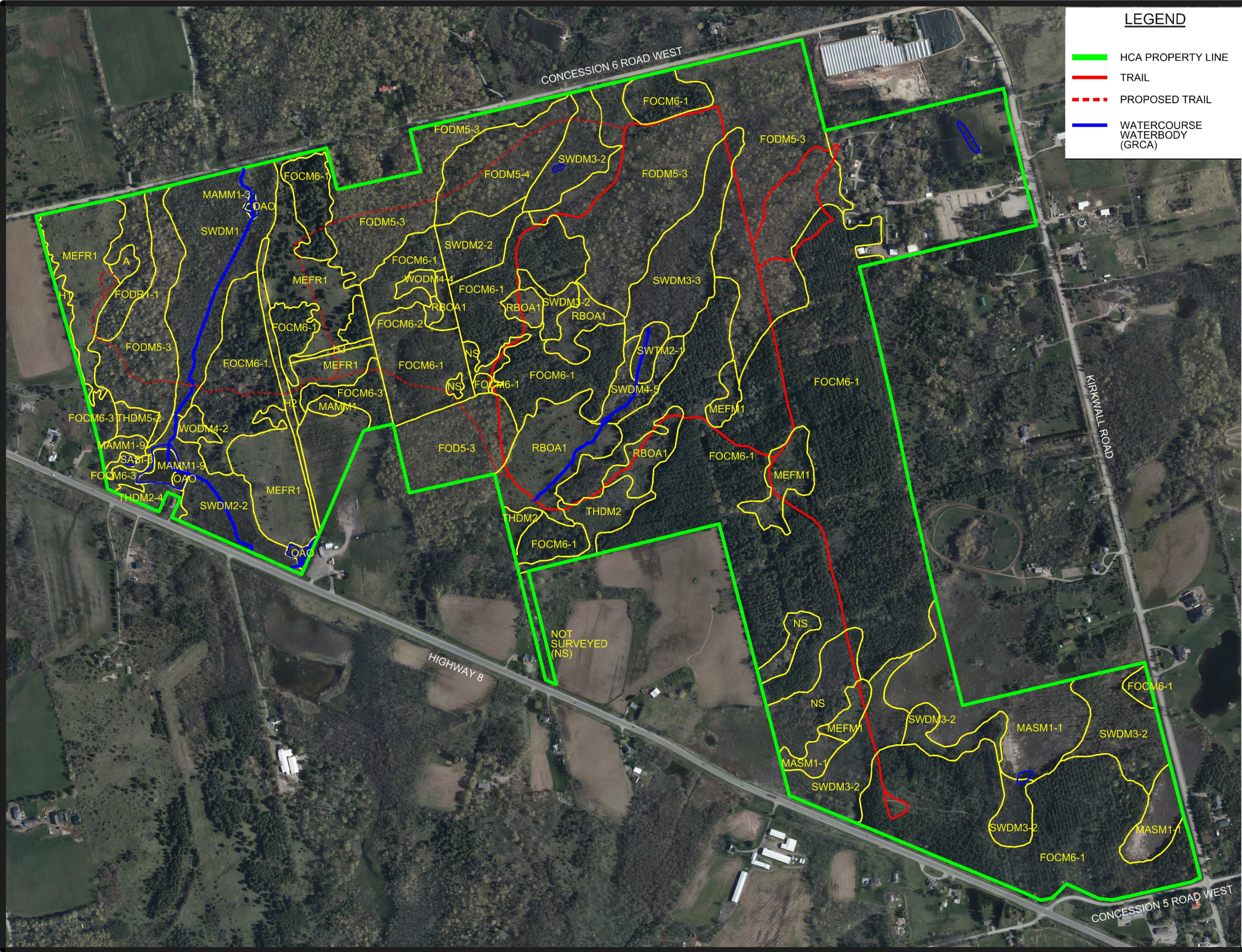
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Source: All mapping by Hamilton Conservation Authority, 2018



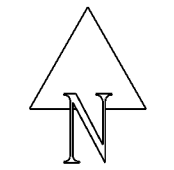
LEGEND

- HCA PROPERTY LINE
- TRAIL
- PROPOSED TRAIL
- WATERCOURSE WATERBODY (GRCA)

ECOLOGICAL LAND CLASSIFICATION:

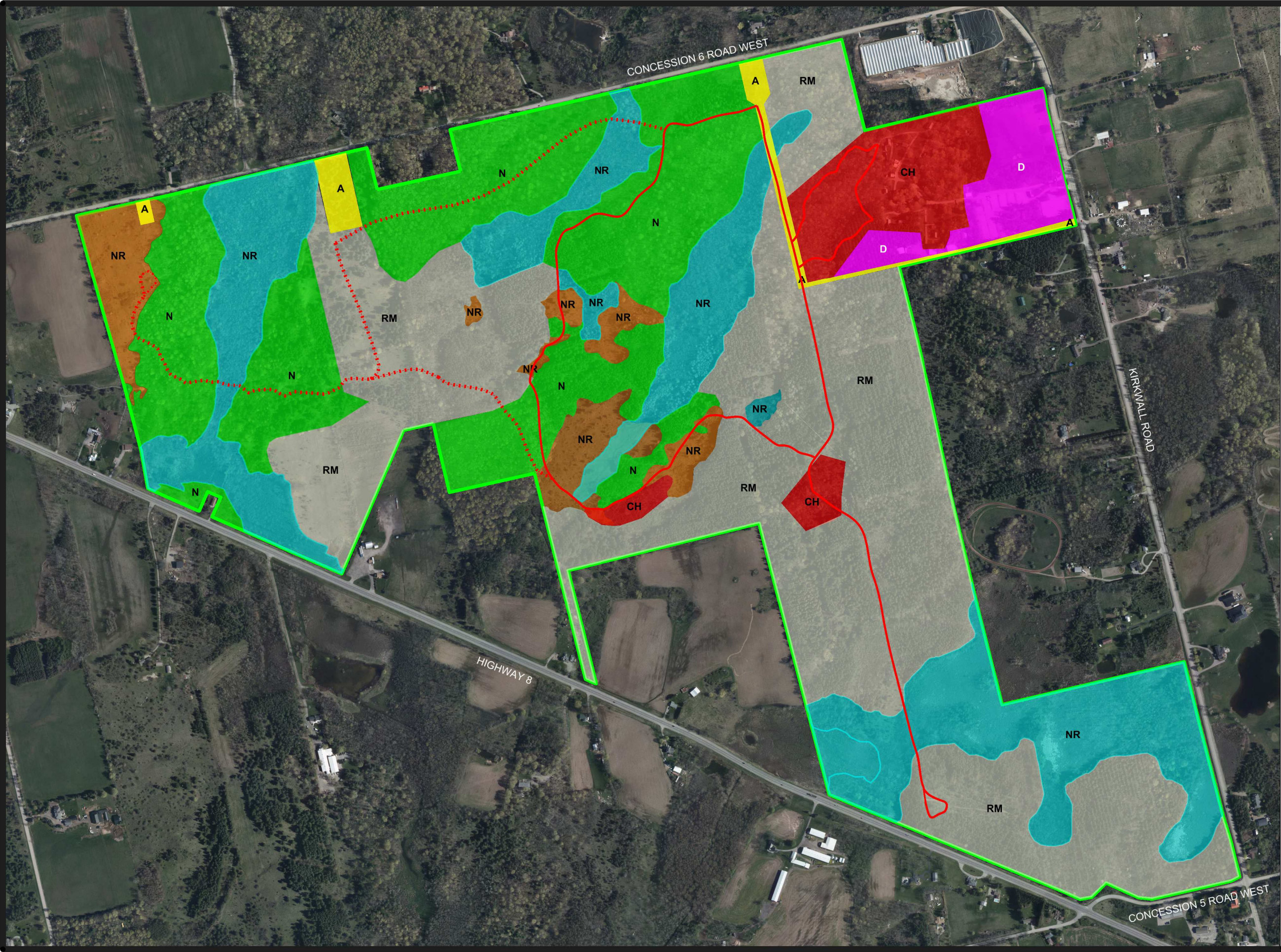
A ANTHROPOGENIC

- FOCM6-1 DRY-FRESH WHITE PINE CONIFEROUS PLANTATION
- FOCM6-2 DRY-FRESH RED PINE CONIFEROUS PLANTATION
- FOCM6-3 DRY-FRESH SCOTS PINE CONIFEROUS PLANTATION
- FODM5-3 DRY-FRESH SUGAR MAPLE OAK DECIDUOUS FOREST
- FODM5-4 DRY-FRESH SUGAR MAPLE IRONWOOD DECIDUOUS FOREST
- FODR1-1 DRY-FRESH SUGAR MAPLE HARDWOOD CALCAREOUS SHALLOW DECIDUOUS FOREST
- H1,H2,H3 HARDWOOD DOMINATED HEDGEROWS
- MAMM1-3 REED CANARY GRASS GRAMINOID MINERAL MEADOW MARSH
- MAMM1-9 NARROW-LEAVED SEDGE GRAMINOID MINERAL MEADOW MARSH
- MASM1-1 CATTAIL MINERAL SHALLOW MARSH
- MEFM1 MIXED THICKET MEADOW
- MEFR1 DRY-FRESH CALCAREOUS BEDROCK FORB MEADOW
- RBOA1 OPEN ALVAR ROCK BARREN
- SAS1-3 STONEWORT SUBMERGED SHALLOW WATER AQUATIC
- SWDM1 OAK MINERAL DECIDUOUS SWAMP
- SWDM2-2 GREEN ASH DECIDUOUS SWAMP
- SWDM3-2 SILVER MAPLE MINERAL SWAMP
- SWDM4-5 POPLAR MINERAL DECIDUOUS SWAMP
- SWTM2-1 RED OSIER DOGWOOD MINERAL DECIDUOUS THICKET SWAMP
- THDM2-4 DRY-FRESH GRAY DOGWOOD DECIDUOUS THICKET
- THDM5-2 FRESH-MOIST GRAY DOGWOOD DECIDUOUS THICKET
- OAO OPEN AQUATIC
- WODM4-2 DRY-FRESH WHITE ASH DECIDUOUS WOODLAND
- WODM4-4 BLACK WALNUT DECIDUOUS WOODLAND



ECOLOGICAL LAND CLASSIFICATION
WESTFIELD HERITAGE VILLAGE
MASTER PLAN

DATE: 2018/11/01



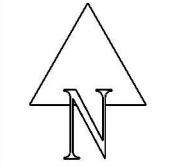
LEGEND

- HCA PROPERTY LINE
- EXIST. TRAIL
- PROPOSED TRAIL (SEE TRAIL MASTER PLAN)

PARK ZONES **

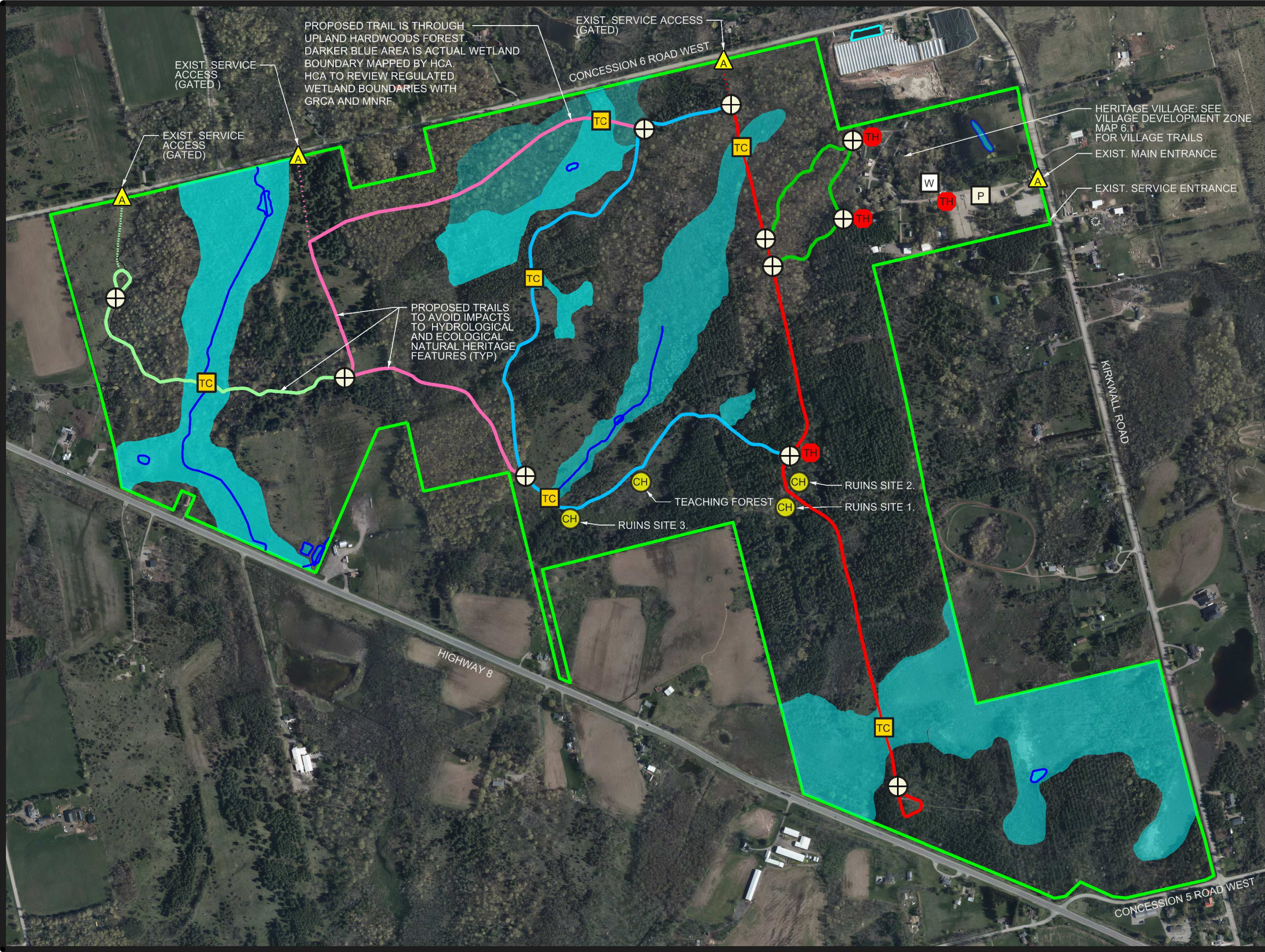
- NR NATURE RESERVE (WETLAND)
- NR NATURE RESERVE (SIGNIFICANT WILDLIFE HABITAT)
- N NATURAL
- A ACCESS
- CH CULTURAL HERITAGE
- D DEVELOPMENT
- RM RESOURCE MANAGEMENT

** ZONES FOLLOW CRITERIA SET OUT IN THE NIAGARA ESCARPMENT PLAN AND NIAGARA PARKS AND OPEN SPACE SYSTEM (NEPOSS) PLANNING MANUAL



**CONSERVATION AREA ZONES
WESTFIELD HERITAGE VILLAGE
MASTER PLAN**

DATE: 2018/11/01



LEGEND

- CONSERVATION PROPERTY
- WATER BODY
- REGULATED WETLAND
- ACCESS POINTS
- PARKING
- PUBLIC WASHROOM
- TRAIL HEAD - STAGING AREA
- TRAIL NODE - INTERSECTION
- CULTURAL HERITAGE FEATURE
- TRAIL CROSSING - BRIDGE / CULVERT

EXISTING RECREATIONAL TRAILS:

- SUGAR SHACK TRAIL (710m)
- GIANT SWALLOWTAIL TRAIL (1.21 Km)
- CHINQUAPIN OAK TRAIL (1.85 Km)

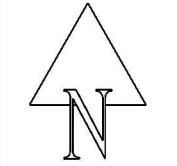
PROPOSED RECREATIONAL TRAILS:

- NEW TRAIL LOOP TO BE NAMED (1.5 Km)
- NEW TRAIL TO BE NAMED (750m)

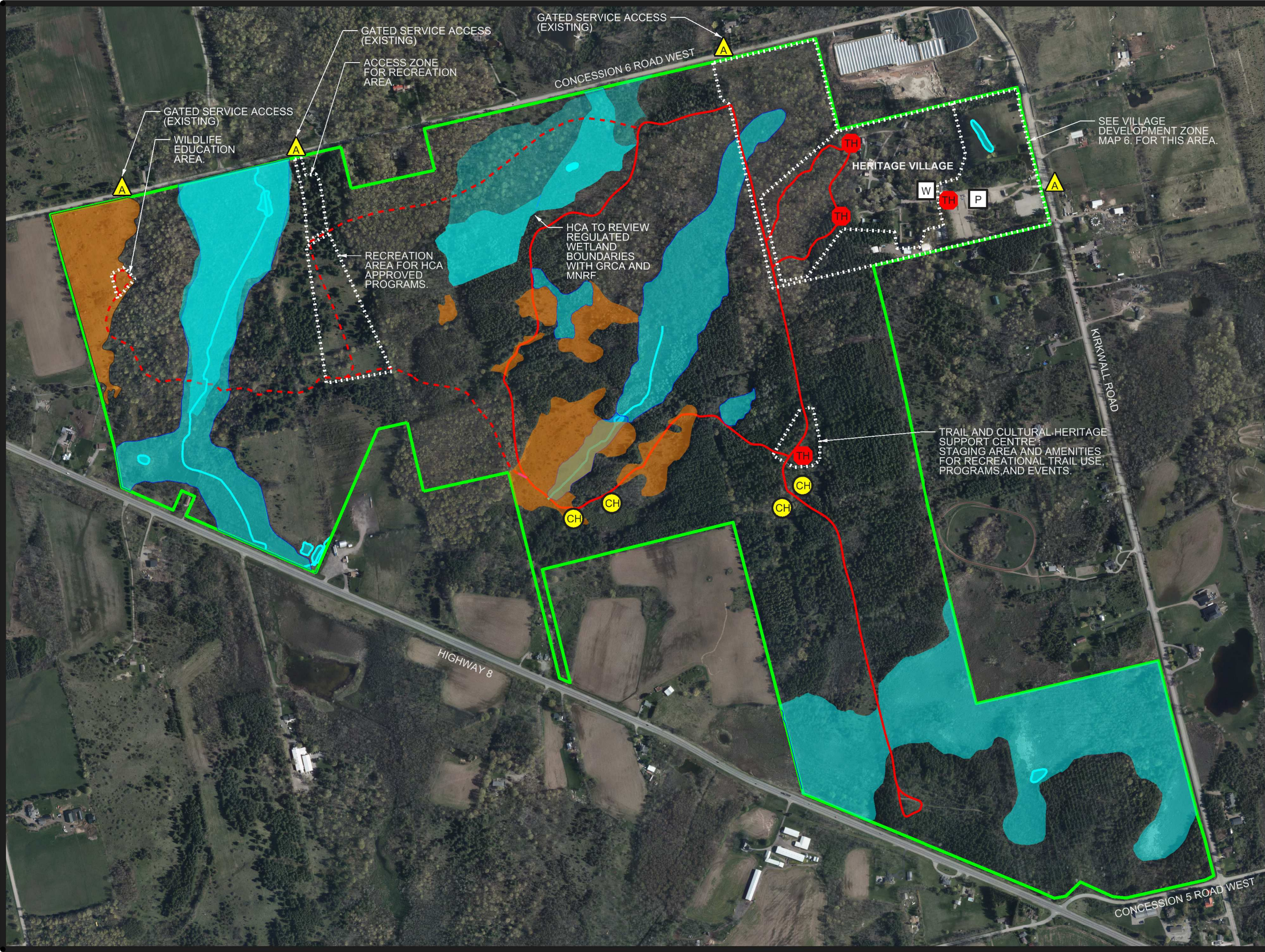
NOTE:

1. CITY MAY REQUIRE AN ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR PROPOSED NEW RECREATIONAL TRAILS.

2. GRCA PERMIT REQUIRED FOR NEW RECREATIONAL TRAILS CROSSING REGULATED WETLANDS.

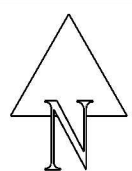


**TRAIL MASTER PLAN
WESTFIELD HERITAGE VILLAGE
MASTER PLAN**



LEGEND

- CONSERVATION PROPERTY
- RECREATIONAL TRAIL SYSTEM
- FUTURE RECREATIONAL TRAILS
- WATER BODY
- REGULATED WETLAND
- PROTECTED WILDLIFE AREA
- ACCESS POINT
- PARKING
- PUBLIC WASHROOM
- CULTURAL HERITAGE FEATURE
- TRAIL HEAD - STAGING AREA
- DEVELOPMENT ITEM




DATE: 2018/11/01

SITE CONCEPT MAP

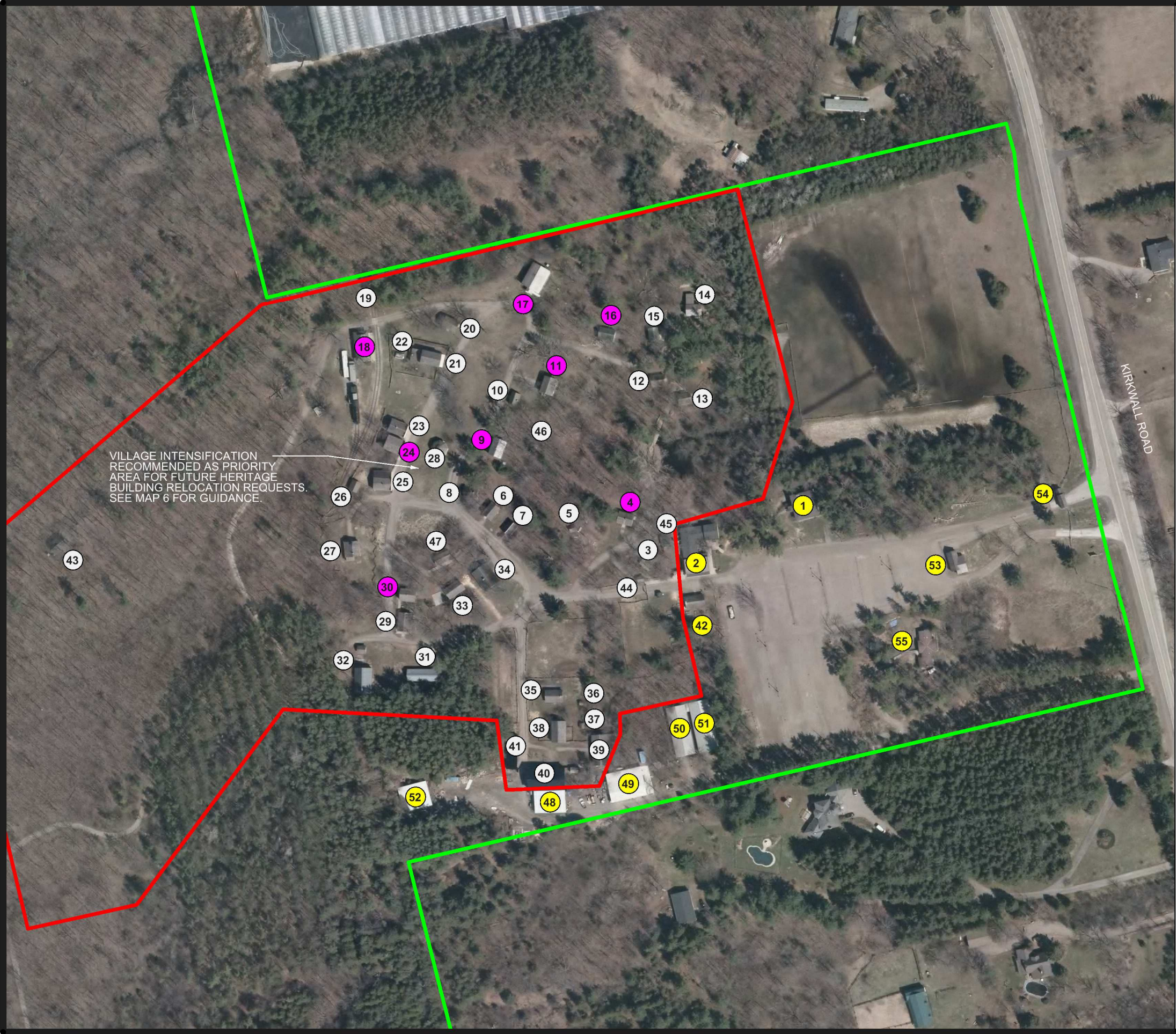
WESTFIELD HERITAGE VILLAGE

MASTER PLAN



Hamilton Conservation Authority

Healthy Streams...Healthy Communities!



LEGEND

- 1

POTTS BUILDING
(MAIN OFFICE)

2

IRONWOOD TEA HOUSE

3

BLACKSMITH SHOP

4

BLACKSMITH'S HOUSE

5

BAKE OVEN

6

SPINNING AND WEAVING
SHOP

7

TAILOR SHOP (WILLIAM
EDMUNSON HOUSE)

8

PRINT & BOOK BINDING
SHOP

9

MISENER HOUSE

10

BOOT & HARNESS SHOP

11

BAMBERGER HOUSE

12

LOG CHAPEL

13

HILL HOUSE

14

WESTBROOK HOUSE

15

TRADING POST

16

QUEEN'S RANGERS
CABIN

17

EPISCOPAL METHODIST
CHURCH

18

JERSEYVILLE RAILWAY
STATION

19

SUMMIT TOOLSHED

20

DRUG STORE

21

GILLEN HOUSE

22

GREENHOUSE

23

HARDWARE STORE

24

DRY GOODS STORE

25

GENERAL STORE

26

ICE HOUSE

27

CATHCART SCHOOL

28

BANDSTAND

29

GEORGE POTTS SPINNING
WHEEL & WORKSHOP

30

CABINETMAKER'S SHOP

31

PLANING MILL

32

SAWMILL

33

D'AUBIGNY SHED

34

D'AUBIGNY INN

35

LOCKHART LOG HOUSE

36

SMOKEHOUSE

37

LOG OUTHOUSE

38

FARM BARN

39

CARRIAGE BARN

40

AGRICULTURAL BARN

41

FARM DRIVE SHED

42

GIFT SHOP

43

MAPLE SUGAR SHACK

44

TICKET KIOSK

45

PUMP HOUSE

46

MISENER OUTHOUSE

47

PUBLIC WASHROOMS
(PORT-O-POTTY STRUCT.)

48

EQUIPMENT STORAGE

49

MAINTENANCE
WORKSHOP

50

ARTIFACT WAREHOUSE 1

51

ARTIFACT WAREHOUSE 2

52

STORAGE SHED

53

WASHROOM /
CHANGEROOMS (N.I.S.)

54

GATEHOUSE

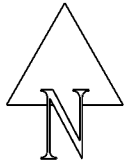
55

1049 KIRKWALL ROAD
RENTAL HOUSE
- HCA PROPERTY
LINE

HERITAGE
VILLAGE-
CULTURAL
HERITAGE ZONE
(SEE MAP 6)

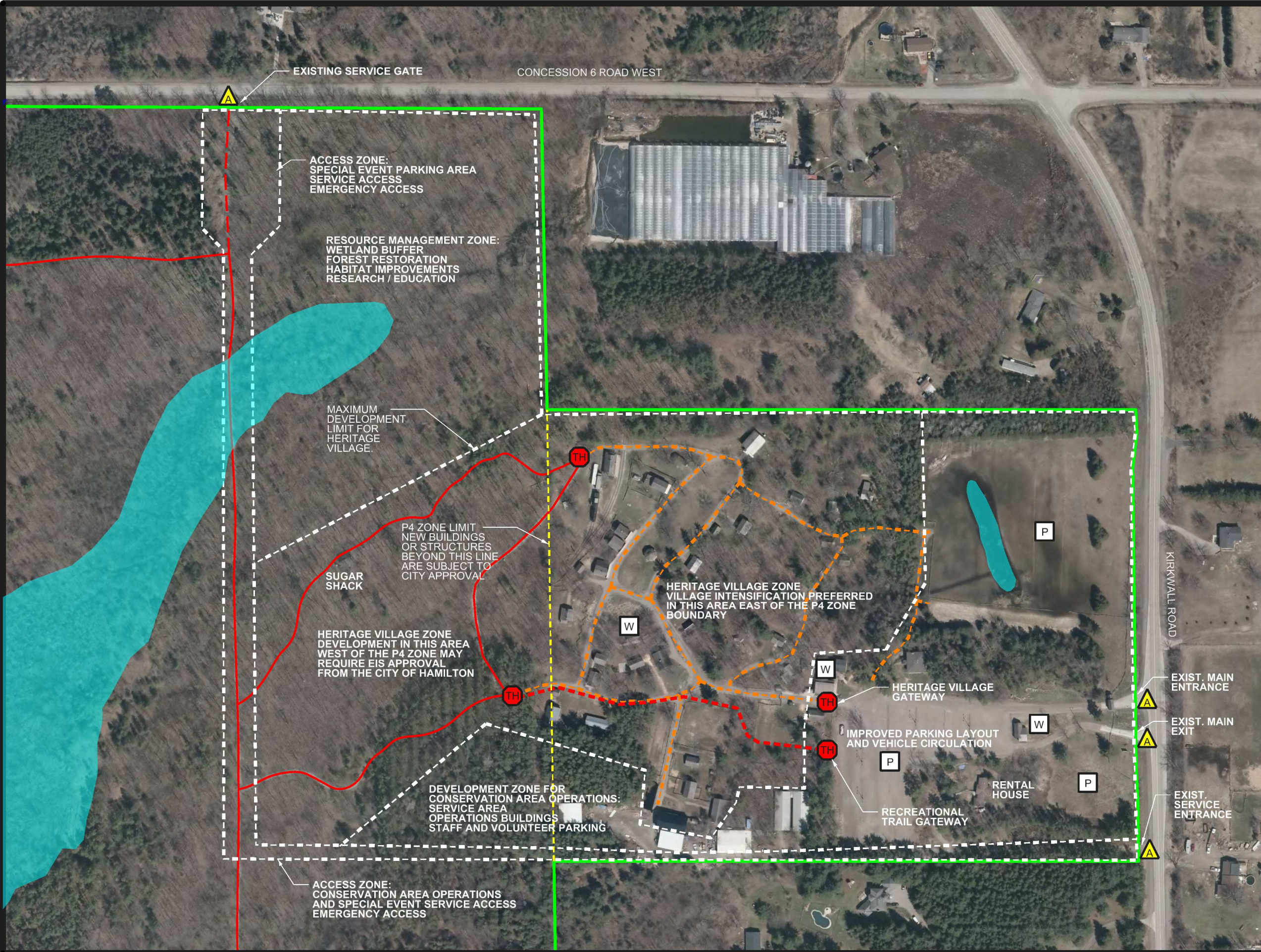
DEVELOPMENT
ZONE
BUILDINGS
(SEE MAP 6)

DESIGNATED
HERITAGE
BUILDINGS
PROTECTED
UNDER THE
ONTARIO
HERITAGE ACT



BUILDING MAP
WESTFIELD HERITAGE VILLAGE
MASTER PLAN

DATE: 2018/11/01



LEGEND

- CONSERVATION PROPERTY
- RECREATIONAL TRAIL SYSTEM
- VILLAGE TRAIL SYSTEM
- CITY ZONE BOUNDARY
- WATER BODY
- DEVELOPMENT ZONE / DEVELOPMENT ITEMS (SEE CONSERVATION ZONES MAP 2)
- ACCESS POINT
- PUBLIC PARKING
- PUBLIC WASHROOM
- TRAIL HEAD - STAGING AREA



**VILLAGE DEVELOPMENT ZONE
WESTFIELD HERITAGE VILLAGE
MASTER PLAN**

DATE: 2018/11/01

WESTFIELD CAPITAL DEVELOPMENT AND RESOURCE DEVELOPMENT PRIORITIES: 2018 - 2028

A. Village Area Improvements *Budget (900K)

General Building, Maintenance Cleanup and Repurposing	250,000
General Site Servicing Upgrades	100,000
Locomotive Train Car Rehabilitation	50,000
Parking Lot Improvements	100,000
Staff and Volunteer Service Area	350,000
Village Accessibility Improvements	25,000
Village Interpretive Signage	25,000

B. Natural Area Improvements *Budget (635K)

Access Zone Improvements	35,000
Bridges and Boardwalks (4)	100,000
Forest Area Rehabilitation	50,000
Interpretive Signage	15,000
Perimeter Fencing	150,000
Perimeter Service Gates	20,000
Trails	75,000
Trail Centre and Staging Area	50,000
Trail Signage updates	15,000
Wetland Area Rehabilitation	50,000
Wildlife Area Rehabilitation	50,000
Wildlife Lookout	25,000

C. Outside Funding Dependent Improvements *Budget (3.4M)

Fire Hall***	300,000
Town Hall***	600,000
Visitor / Orientation Centre**	2.5 M

* Budget costs are in 2018 dollars, projects and budgets to be reviewed annually.

** Major capital item dependent on fundraising.

*** Pending further review, building re-location requests and funding.

Source: Hamilton Conservation Authority, 2018



Eight Guiding Principles in the Conservation of Built Heritage Properties

The following guiding principles are ministry statements in the conservation of built heritage properties and are based on international charters which have been established over the century. These principles provide the basis for all decisions concerning good practice in heritage conservation around the world. Principles explain the "why" of every conservation activity and apply to all heritage properties and their surroundings.

1. RESPECT FOR DOCUMENTARY EVIDENCE:

Do not base restoration on conjecture.

Conservation work should be based on historic documentation such as historic photographs, drawings and physical evidence.

2. RESPECT FOR THE ORIGINAL LOCATION:

Do not move buildings unless there is no other means to save them.

Site is an integral component of a building or structure. Change in site diminishes cultural heritage value considerably.

3. RESPECT FOR HISTORIC MATERIAL:

Repair/conservé - rather than replace building materials and finishes, except where absolutely necessary.

Minimal intervention maintains the heritage content of the built resource.

4. RESPECT FOR ORIGINAL FABRIC:

Repair with like materials.

Repair to return the resource to its prior condition, without altering its integrity.

5. RESPECT FOR THE BUILDING'S HISTORY:

Do not restore to one period at the expense of another period.

Do not destroy later additions to a building or structure solely to restore to a single time period.

6. REVERSIBILITY:

Alterations should be able to be returned to original conditions. This conserves earlier building design and technique.

e.g. When a new door opening is put into a stone wall, the original stones are numbered, removed and stored, allowing for future restoration.

7. LEGIBILITY:

New work should be distinguishable from old.

Buildings or structures should be recognized as products of their own time, and new additions should not blur the distinction between old and new.

8. MAINTENANCE:

With continuous care, future restoration will not be necessary.

With regular upkeep, major conservation projects and their high costs can be avoided.

For more information, please call the Ministry of Culture at (416) 212-0644 or Toll Free at 1-866-454-0049 or refer to the website at www.culture.gov.on.ca.

Spring 2007

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Operating Revenues*	Amount	% of Revenues
Admissions	\$24,748	2.7%
Vehicle Passes	\$32,371	3.6%
School Programming	\$64,455	7.1%
Tours	\$4,887	0.5%
Food / Novelty Sales	\$23,769	2.6%
Special Events Programming	\$3,465	0.4%
Residence Rental	\$12,240	1.4%
Rental - Facility	\$4,117	0.5%
Rental - Weddings	\$15,376	1.7%
Rental - Films	\$28,250	3.1%
Municipal Levy	\$574,000	63.7%
Foundation contribution	\$6,228	0.7%
Grants	\$7,539	0.8%
Miscellaneous	\$6,341	0.7%
Event Revenues (see below)	\$93,808	10%
Total Revenues	\$901,594	100%

* 34.4% of revenue is self - generated

Operating Costs	Amount	% of Costs
Marketing and Advertising	\$58,041	7%
Administration	\$10,104	1%
Wages and Salaries	\$502,502	63%
Equipment, Supplies, Maintenance	\$94,267	12%
Equipment Rentals	\$52,520	7%
Utilities	\$44,292	6%
Insurance	\$6,743	1%
Taxes	\$7,295	1%
Program Expenses, Schools	\$27,452	3%
Total Costs	\$803,216	100%

Event Revenue and Expense	Revenue Generated	% of Event Revenue
Christmas: 24,096.90 less 5,040.96	\$ 19,055.94	23%
Maple Syrup: 42,247.28 less 12,425.74	\$ 29,821.54	36%
Corporate: 21,970.71 less 8115.5	\$ 13,855.21	17%
Halloween: 12,210.03 less 1,709.62	\$ 10,500.41	13%
Ice Cream: 18,010.79 less 3969.35	\$ 14,041.44	16%
Telling Tales: 8,061.97 less 1,528.67	\$ 6,533.30	8%
Pumpkin Sunday: nil	nil	
Total	\$ 93,807.84	100%

Year	Public Programs	Education	Any Sunday	Weddings and Rentals	Total	Increase per year
2010	15,855	12,346	1,910	1,809	31,920	
2011	20,393	11,037	3,130	1,450	36,010	4,090
2012	22,189	10,906	2,610	3,107	38,812	2,802
2013	23,605	11,230	2,505	1,479	38,819	7
2014	25,235	10,569	2,992	1,521	40,317	1,498
2015	27,384	8931**	3,968	1,500	41,783	1,466
2016	29,081	12,103	2,982	1,500	45,666	3,883
2017	30,846	11,876	2,935	1,500	47,157	213

** lower in previous years due to the 2015 teacher's strike

Attendance Projections: Average increase per year 1,994

2018	49,151
2019	51,145
2020	53,139
2021	55,133
2022	57,127
2023	59,121
2024	61,115
2025	63,109
2026	65,103
2027	67,097
2028	69,091

Source: Westfield Heritage Village Visitor Centre Feasibility Study, March 2016 by TCI Management Consultants • Reich + Petch Architects and KCI, and supplemental information from 2016-2017 by Hamilton Conservation Authority

II. Highlights

Highlights of the new 2016–2041 projections are for the reference scenario:

- Ontario's population is projected to grow by 30.3 per cent, or more than 4.2 million, over the next 25 years, from an estimated 14.0 million on July 1, 2016 to more than 18.2 million by July 1, 2041.
- The annual rate of growth of Ontario's population is projected to ease gradually from 1.8 per cent to 0.8 per cent over the projection period.
- Net migration is projected to account for 73 per cent of all population growth in the province over the 2016–2041 period, with natural increase accounting for the remaining 27 per cent. In the second half of the projections, the contribution of natural increase moderates as baby boomers increasingly reach senior years and the number of deaths increases more rapidly.
- The number of seniors aged 65 and over is projected to almost double from 2.3 million, or 16.4 per cent of population, in 2016 to 4.6 million, or 25.0 per cent, by 2041. The growth in the share and number of seniors accelerates over the 2016–2031 period as baby boomers turn age 65. After 2031, the growth in the number of seniors slows significantly.
- The number of children aged 0–14 is projected to increase gradually over the projection period, from 2.2 million in 2016 to almost 2.7 million by 2041. The children's share of population is projected to decrease gradually from 15.9 per cent in 2016 to 14.9 per cent by 2041.
- The number of Ontarians aged 15–64 is projected to increase from 9.5 million in 2016 to 10.9 million by 2041. This age group is projected to decline as a share of total population, declining from 67.8 per cent in 2016 to 60.1 per cent by 2041. As baby boomers continue to turn age 65, the growth in population aged 15–64 slows until 2027–28 and then accelerates over the remainder of the projection.
- The Greater Toronto Area (GTA) is projected to be the fastest growing region of the province, with its population increasing by almost 2.9 million, or 42.3 per cent, to reach 9.6 million by 2041. The GTA's share of provincial population is projected to rise from 48.3 per cent in 2016 to 52.7 per cent in 2041.
- All regions see a shift to an older age structure. The GTA is expected to remain the region with the youngest age structure as a result of strong international migration and positive natural increase.

Source: "Ontario Population Projections Update, Spring 2017 Based on the 2011 Census, 2016-2041 Ontario and its 49 census divisions" Ontario Ministry of Finance, copyright 2017

Region 3: Hamilton Halton Brant

[Visitor Statistics](#)

[Visitor Spending Statistics](#)

[Hotel Statistics](#)

[Tourism Related Establishments](#)



<http://www.mtc.gov.on.ca/en/research/rtp/rtp.shtml>
tourism.research@ontario.ca

Visitors to Region 3		Origin				Length of Stay		Main Purpose of Trip					
Year: 2014	Total	Ontario	Other Canada	US	Overseas	Overnight	Same-Day	Pleasure	VFR	Shopping	Conventions	Business	Other
Total Visits													
Total Household/Party Visits	8,124,400	7,747,900	76,200	202,700	97,500	2,188,700	5,935,700	1,538,800	4,794,800	326,200	90,200	981,000	393,500
Total Person Visits	10,358,600	9,779,100	104,700	353,200	121,500	2,690,900	7,667,700	1,925,300	6,331,700	450,200	97,500	1,002,700	551,100
Length of Stay (Person Visits)													
Overnight	2,690,900	2,284,300	101,600	206,700	98,200	2,690,900	-	322,300	2,124,600	15,500	7,800	130,800	89,900
Same-Day	7,667,700	7,494,800	3,100	146,500	23,300	-	7,667,700	1,603,000	4,207,100	434,700	89,700	871,900	461,300
Main Purpose of Trip (Person Visits)													
Pleasure	1,925,300	1,813,000	19,500	83,700	9,000	322,300	1,603,000	1,925,300	-	-	-	-	-
VFR	6,331,700	6,037,400	75,100	133,800	85,400	2,124,600	4,207,100	-	6,331,700	-	-	-	-
Shopping	450,200	448,400	1,800	N/A	N/A	15,500	434,700	-	-	450,200	-	-	-
Conventions (Personal)	97,500	97,500	-	N/A	N/A	7,800	89,700	-	-	-	97,500	-	-
Business	1,002,700	905,900	7,800	66,600	22,600	130,800	871,900	-	-	-	-	1,002,700	-
Conventions (Business) & Conferences	320,800	308,000	2,300	6,200	4,300	25,400	295,400	-	-	-	-	320,800	-
Other Business	681,900	597,900	5,500	60,300	18,200	105,500	576,500	-	-	-	-	681,900	-
Other Personal	551,100	476,900	600	69,100	4,600	89,900	461,300	-	-	-	-	-	551,100
Quarter Trip Started (Person Visits)													
Q1 (Jan - Mar)	2,441,100	2,326,800	28,900	68,800	16,500	600,400	1,840,800	242,300	1,567,600	64,900	5,000	393,300	168,000
Q2 (Apr - Jun)	2,537,700	2,374,300	21,800	110,300	31,300	580,200	1,957,500	655,500	1,419,100	123,800	22,200	180,900	136,100
Q3 (Jul - Sep)	2,493,500	2,291,300	30,300	122,000	50,000	708,800	1,784,800	503,000	1,460,000	120,900	56,900	283,100	69,600
Q4 (Oct - Dec)	2,886,200	2,786,700	23,800	52,000	23,700	801,600	2,084,600	524,500	1,884,900	140,600	13,500	145,500	177,300
Accommodation Type (Person Visits)													
Roofed commercial	421,400	288,400	11,400	95,200	26,500	421,400	-	105,300	153,400	1,200	6,100	113,600	41,700
Hotels	297,600	186,700	11,200	73,300	26,500	297,600	-	78,300	89,800	1,200	1,000	102,600	24,700
Motels	77,700	66,700	-	11,000	-	77,700	-	16,300	50,700	-	3,500	4,800	2,400
Commercial cottage/cabins	18,600	7,700	-	10,900	-	18,600	-	8,300	-	-	-	800	9,600
Other roofed commercial	27,500	27,300	300	N/A	N/A	27,500	-	2,400	13,000	-	1,700	5,500	5,000
Camping/RV facilities	35,500	31,100	-	4,400	-	35,500	-	31,100	1,800	-	-	-	2,600
Private homes/cottages	2,222,500	1,951,500	89,400	114,000	67,500	2,222,500	-	185,100	1,963,700	14,300	1,700	15,600	42,100
Private homes	2,159,000	1,888,100	89,400	114,000	67,500	2,159,000	-	125,400	1,963,700	14,300	1,700	11,800	42,100
Private cottages	63,900	63,500	500	-	-	63,900	-	60,100	-	-	-	3,800	-
Other accommodation type	29,700	13,700	1,100	10,500	4,300	29,700	-	8,000	16,200	-	-	1,600	3,900
Number of Nights (Person Visits)													
0 nights	7,667,700	7,494,800	3,100	146,500	23,300	-	7,667,700	1,603,000	4,207,100	434,700	89,700	871,900	461,300
1 night	1,248,700	1,177,200	1,900	62,000	7,700	1,248,700	-	145,600	1,013,400	1,200	1,100	61,500	25,800
2 nights	729,600	665,100	15,700	43,800	4,900	729,600	-	91,800	575,700	4,100	4,000	25,800	28,200
3 nights	351,300	286,300	19,100	38,800	7,100	351,300	-	41,000	271,000	10,200	1,700	11,500	16,100
4 nights	123,800	79,100	15,700	22,900	6,100	123,800	-	18,200	91,300	-	1,000	6,400	7,000
5 nights	54,200	29,300	7,200	9,600	8,100	54,200	-	4,000	32,300	-	-	16,600	1,200
6 - 9 nights	100,200	33,600	28,900	20,100	17,600	100,200	-	14,900	75,500	-	-	2,200	7,600
10+ nights	83,200	13,700	13,200	9,500	46,800	83,200	-	6,800	65,400	-	-	7,000	4,000
Number of Nights													
Total Nights	7,031,000	4,270,200	606,800	689,800	1,464,200	7,031,000	-	770,600	5,493,900	40,000	18,200	422,600	285,700
Average nights of total visits	0.68	0.44	5.79	1.95	12.05	2.61	-	0.40	0.87	0.09	0.19	0.42	0.52
Average nights of overnight visits	2.61	1.87	5.97	3.34	14.90	2.61	-	2.39	2.59	2.58	2.33	3.23	3.18
Number of Nights by Accommodation Type													
Nights in roofed commercial	875,600	525,600	37,600	207,700	104,700	875,600	-	200,100	274,700	1,200	15,100	281,200	103,200
Nights in hotels	590,600	293,900	36,300	155,600	104,700	590,600	-	129,500	150,900	1,200	4,100	248,300	56,400
Nights in motels	156,400	138,600	-	17,800	-	156,400	-	27,700	103,100	-	6,100	6,400	13,200
Nights in commercial cottage/cabins	62,100	27,800	-	34,300	-	62,100	-	33,100	-	-	-	1,600	27,400
Nights in other roofed commercial	66,600	65,300	1,300	N/A	N/A	66,600	-	9,800	20,700	-	5,000	25,000	6,200
Nights in camping/RV facilities	90,500	67,100	-	23,500	-	90,500	-	67,100	5,500	-	-	-	17,900
Nights in private homes/cottages	5,910,000	3,654,400	567,300	446,200	1,242,100	5,910,000	-	487,000	5,176,000	38,800	3,100	66,900	138,200
Nights in private homes	5,749,600	3,495,400	565,900	446,200	1,242,100	5,749,600	-	330,400	5,176,000	38,800	3,100	63,100	138,200
Nights in private cottages	160,400	159,000	1,400	-	-	160,400	-	156,600	-	-	-	3,800	-
Nights in other	154,900	23,200	1,900	12,500	117,300	154,900	-	16,400	37,800	-	-	74,500	26,300
Visitors to Region 3		Origin				Length of Stay		Main Purpose of Trip					

Year: 2014	Total	Ontario	Other Canada	US	Overseas	Overnight	Same-Day	Pleasure	VFR	Shopping	Conventions	Business	Other
Activities Participated (Person Visits)													
Festivals/Fairs	133,200	51,000	4,800	58,300	19,000	99,700	33,500	18,600	70,900	10,500	7,200	3,300	22,700
Cultural Performances	161,100	83,800	9,300	58,000	9,900	110,900	50,200	67,800	71,200	2,800	1,000	500	17,800
Museums/Art Galleries	175,100	106,700	8,800	27,600	32,000	160,100	15,000	31,100	116,300	10,200	-	10,600	6,800
Zoos/Aquariums/Botanical Gardens	102,300	67,000	5,800	9,700	19,900	62,700	39,600	38,900	55,700	-	1,400	4,000	2,400
Sports Events	431,400	394,600	20,400	12,100	4,300	102,900	328,400	237,200	139,800	18,600	5,500	3,300	26,900
Casinos	142,100	101,200	5,700	22,600	12,500	74,300	67,800	73,400	64,500	-	-	1,100	3,100
Theme Parks	17,000	7,500	1,600	2,700	5,200	12,300	4,700	3,600	11,900	-	1,400	-	-
National/Provincial Nature Parks	135,400	74,100	5,600	26,900	28,800	112,100	23,300	32,400	93,600	-	-	4,700	4,700
Historic Sites	183,700	68,400	4,000	48,100	63,200	157,700	26,000	33,000	127,600	-	1,400	8,700	13,000
Sightseeing	335,000	174,200	3,800	72,400	84,600	149,800	185,200	167,900	126,000	-	-	22,300	18,900
Aboriginal	18,400	18,200	-	-	200	18,400	-	1,300	17,100	-	-	-	-
Visit Family or Relatives	4,763,500	4,474,900	20,900	169,900	97,900	926,000	3,837,600	358,300	4,230,100	14,400	5,900	88,300	66,500
Shopping	866,600	671,500	5,300	93,600	96,200	196,800	669,700	64,700	191,500	362,900	2,900	218,800	25,700
Movies	133,500	117,500	2,500	5,100	8,400	122,500	11,000	7,800	123,500	-	-	1,100	1,200
Restaurant or bar	514,200	266,200	1,900	133,900	112,300	293,200	221,000	90,000	294,800	22,800	1,000	79,200	26,400
Medical/Dental appointment	212,400	210,600	200	1,100	400	3,100	209,300	1,100	7,200	-	42,100	-	161,900
Business Meeting/Conference/Seminar	391,000	314,300	1,300	54,100	21,400	85,600	305,400	1,800	20,600	-	13,000	345,200	10,400
Any Outdoor/Sports Activity	861,800	785,600	25,500	28,100	22,600	372,900	488,900	553,600	282,200	-	1,400	10,600	14,000
Play a sport	131,900	129,100	700	2,000	-	57,800	74,100	80,700	41,300	-	1,400	800	7,600
Boating	81,300	63,400	400	9,000	8,500	44,700	36,600	57,800	13,900	-	1,400	7,900	300
Golfing	96,800	92,100	3,400	-	1,300	33,300	63,600	67,100	29,800	-	-	-	-
Fishing	77,700	76,100	-	-	1,600	50,000	27,600	35,200	37,300	-	1,400	3,800	-
Hunting	9,100	9,100	-	-	-	4,800	4,300	4,300	4,800	-	-	-	-
Skiing/Snowboarding	32,300	32,300	-	-	-	21,300	11,000	11,000	21,300	-	-	-	-
Snowmobiling	5,800	5,600	-	-	200	200	5,600	200	5,600	-	-	-	-
ATV	3,800	3,300	500	-	-	500	3,300	3,800	-	-	-	-	-
Cycling	48,900	47,400	900	-	600	14,200	34,700	38,900	10,000	-	-	-	-
Hiking	275,900	252,000	16,300	3,500	4,100	183,100	92,800	124,800	145,700	-	-	4,900	600
Camping	155,100	148,500	1,200	4,400	1,000	51,600	103,500	139,400	7,900	-	1,400	3,800	2,600
Visit a beach	107,800	78,500	5,400	14,500	9,400	79,700	28,100	41,900	63,500	-	1,400	-	1,100
Wildlife/Bird watching	97,100	66,200	13,900	3,700	13,400	83,200	13,900	38,100	49,700	-	1,400	4,600	3,300
Household/Party Size and Composition													
Total household/party visits	8,124,400	7,747,900	76,200	202,700	97,500	2,188,700	5,935,700	1,538,800	4,794,800	326,200	90,200	981,000	393,500
1 person (Party Visits)	1,853,500	1,658,900	14,300	104,200	76,200	761,700	1,091,800	100,500	1,235,300	61,200	53,600	260,000	142,900
2 persons (Party Visits)	1,367,100	1,258,200	21,800	67,700	19,300	324,400	1,042,700	358,400	785,600	88,800	12,600	40,000	81,600
3 or more persons (Party Visits)	4,903,900	4,830,900	40,200	30,800	2,100	1,102,600	3,801,300	1,079,800	2,773,800	176,300	24,000	680,900	169,000
Average party size	3.04	3.07	3.51	1.79	1.30	2.30	1.83	1.60	2.02	1.67	1.89	3.97	1.92
Party with adult(s) only (%)	89%	89%	93%	91%	96%	92%	88%	79%	90%	91%	93%	100%	88%
Party with children (%)	11%	11%	7%	9%	4%	8%	12%	21%	10%	9%	7%	0%	12%
Age of Respondents (Person Visits)													
Under 15 years	39,600	N/A	N/A	34,800	4,700	28,100	11,500	12,400	18,500	-	-	-	8,700
15 - 24 years old	1,596,900	1,562,300	3,600	23,700	7,400	660,500	936,400	403,500	991,400	86,400	42,100	33,400	39,900
25 - 34 years old	1,735,300	1,659,800	7,600	38,900	29,000	473,800	1,261,500	226,100	1,079,800	89,900	-	261,800	77,700
35 - 44 years old	1,943,200	1,857,600	22,500	45,900	17,100	403,700	1,539,500	355,900	1,064,400	69,200	14,600	323,900	115,200
45 - 54 years old	1,605,900	1,500,300	33,700	50,200	21,700	476,100	1,129,800	348,900	964,200	60,100	24,200	112,200	96,400
55 - 64 years old	1,566,500	1,448,200	22,300	71,000	24,900	221,700	1,344,800	323,200	916,200	80,700	2,600	160,900	82,800
65+ years old	1,853,400	1,750,900	15,000	72,700	14,800	422,500	1,430,900	246,300	1,290,600	63,800	14,100	110,500	128,000
Age not stated	17,800	N/A	N/A	16,000	1,900	4,400	13,400	8,800	6,600	-	-	-	2,400

Source:

This analysis is based on Statistics Canada microdata which contain anonymised data collected in the Travel Survey of Residents of Canada and the International Travel Survey.

All computations on these microdata were prepared by the Ontario Ministry of Tourism, Culture and Sport, and the responsibility for the use and interpretation of these data is entirely that of the authors.

Visitor Spending in Region 3		Origin				Length of Stay		Main Purpose of Trip					
Year: 2014	Total	Ontario	Other Canada	US	Overseas	Overnight	Same-Day	Pleasure	VFR	Shopping	Conventions	Business	Other
Total Visitor Spending in Region													
Total Visitor Spending	819,375,000	654,691,000	36,638,000	60,707,000	67,338,000	381,342,000	438,033,000	177,085,000	431,333,000	42,111,000	6,844,000	111,153,000	50,848,000
Length of Stay (Visitor Spending)													
Overnight	381,342,000	225,511,000	36,222,000	53,134,000	66,475,000	381,342,000	-	60,445,000	226,491,000	1,411,000	2,490,000	66,449,000	24,056,000
Same-Day	438,033,000	429,180,000	416,000	7,573,000	863,000	-	438,033,000	116,640,000	204,842,000	40,700,000	4,354,000	44,705,000	26,792,000
Main Purpose of Trip (Visitor Spending)													
Pleasure	177,085,000	158,428,000	8,233,000	7,351,000	3,073,000	60,445,000	116,640,000	177,085,000	-	-	-	-	-
VFR	431,333,000	352,784,000	24,578,000	16,889,000	37,081,000	226,491,000	204,842,000	-	431,333,000	-	-	-	-
Shopping	42,111,200	41,710,600	400,600	N/A	N/A	1,411,300	40,700,000	-	-	42,111,200	-	-	-
Conventions (Personal)	6,844,400	6,844,400	-	N/A	N/A	2,490,000	4,354,400	-	-	-	6,844,400	-	-
Business	111,153,000	58,214,000	2,910,000	27,384,000	22,645,000	66,449,000	44,705,000	-	-	-	-	111,153,000	-
Conventions & Conferences	29,364,000	21,837,000	661,000	2,733,000	4,133,000	14,877,000	14,487,000	-	-	-	-	29,364,000	-
Other Business	81,789,000	36,376,000	2,249,000	24,652,000	18,512,000	51,572,000	30,218,000	-	-	-	-	81,789,000	-
Other Personal	50,848,000	36,710,000	516,000	9,082,000	4,539,000	24,056,000	26,792,000	-	-	-	-	-	50,848,000
Quarter Trip Started (Visitor Spending)													
Q1 (Jan - Mar)	185,770,000	155,344,000	11,063,000	12,549,000	6,813,000	82,952,000	102,818,000	34,629,000	96,270,000	3,077,000	229,000	42,248,000	9,317,000
Q2 (Apr - Jun)	212,228,000	172,288,000	7,605,000	16,201,000	16,135,000	85,078,000	127,151,000	67,336,000	79,950,000	12,813,000	2,934,000	20,057,000	29,139,000
Q3 (Jul - Sep)	228,286,000	168,085,000	9,054,000	20,747,000	30,401,000	110,352,000	117,935,000	42,723,000	138,695,000	9,365,000	3,369,000	26,474,000	7,660,000
Q4 (Oct - Dec)	193,090,000	158,974,000	8,916,000	11,211,000	13,989,000	102,960,000	90,130,000	32,398,000	116,418,000	16,857,000	312,000	22,374,000	4,732,000
Average Visitor Spending in Region													
Average per person	79	67	350	172	554	142	57	92	68	94	70	111	92
Average per person per overnight visit	142	99	356	257	677	142	-	188	107	91	319	508	268
Average per person per night	54	53	60	77	45	54	-	78	41	35	137	157	84
Average per person per same-day visit	57	57	134	52	37	-	57	73	49	94	49	51	58
Itemized Visitor Spending in Region													
Total Visitor Spending	819,375,000	654,691,000	36,638,000	60,707,000	67,338,000	381,342,000	438,033,000	177,085,000	431,333,000	42,111,000	6,844,000	111,153,000	50,848,000
Transport (Total)	185,078,000	155,429,000	9,980,000	12,676,000	6,994,000	82,179,000	102,900,000	37,209,000	101,871,000	4,505,000	1,247,000	31,755,000	8,491,000
Public Transport	10,178,000	6,919,000	1,652,000	693,000	915,000	6,679,000	3,499,000	1,452,000	7,459,000	10,000	-	435,000	822,000
Canadian Fares	1,235,000	N/A	N/A	398,500	836,600	1,069,700	165,400	21,400	624,400	-	-	299,700	289,700
Other Public Transport	8,943,000	6,919,000	1,652,000	294,000	78,000	5,610,000	3,334,000	1,431,000	6,835,000	10,000	-	136,000	532,000
Vehicle Rental	12,810,000	262,000	1,461,000	7,700,000	3,388,000	12,562,000	249,000	499,000	2,616,000	-	-	8,948,000	748,000
Vehicle Operations	148,175,000	137,255,000	6,133,000	3,429,000	1,358,000	54,171,000	94,004,000	31,652,000	83,246,000	4,464,000	1,247,000	21,249,000	6,318,000
Local Transport	13,914,000	10,993,000	733,000	854,000	1,333,000	8,767,000	5,148,000	3,606,000	8,550,000	31,000	-	1,123,000	604,000
Accommodation	74,899,000	37,624,000	3,010,000	18,256,000	16,010,000	74,899,000	-	17,734,000	18,285,000	149,000	1,076,000	32,203,000	5,452,000
Food & Beverage (Total)	325,388,000	273,381,000	15,747,000	16,812,000	19,448,000	149,048,000	176,341,000	75,111,000	189,026,000	10,185,000	1,367,000	36,790,000	12,909,000
Food & Beverage at Stores	89,987,000	72,315,000	7,095,000	4,592,000	5,984,000	45,364,000	44,622,000	24,490,000	55,503,000	1,711,000	189,000	4,180,000	3,914,000
Food & Beverage at Restaurants/Bars	235,401,000	201,066,000	8,653,000	12,220,000	13,463,000	103,683,000	131,718,000	50,621,000	133,523,000	8,475,000	1,178,000	32,610,000	8,995,000
Recreation/Entertainment (Total)	67,173,000	54,156,000	2,610,000	5,265,000	5,143,000	27,266,000	39,907,000	29,000,000	27,593,000	4,456,000	508,000	3,310,000	2,306,000
Recreation	27,391,000	25,388,000	469,000	1,276,000	258,000	3,032,000	24,359,000	14,945,000	8,677,000	2,796,000	251,000	113,000	609,000
Culture	39,782,000	28,767,000	2,141,000	3,989,000	4,884,000	24,234,000	15,548,000	14,054,000	18,916,000	1,660,000	257,000	3,197,000	1,697,000
Retail/Other (Total)	166,836,000	134,102,000	5,292,000	7,699,000	19,744,000	47,951,000	118,886,000	18,031,000	94,558,000	22,815,000	2,647,000	7,095,000	21,689,000
Clothing	105,004,000	76,107,000	5,094,000	5,082,000	18,720,000	38,760,000	66,244,000	15,966,000	61,340,000	17,121,000	576,000	5,184,000	4,816,000
Other Retail	61,832,000	57,994,000	197,000	2,617,000	1,024,000	9,190,000	52,642,000	2,065,000	33,218,000	5,694,000	2,071,000	1,911,000	16,873,000

Source:
This analysis is based on Statistics Canada microdata which contain anonymised data collected in the Travel Survey of Residents of Canada and the International Travel Survey.
All computations on these microdata were prepared by the Ontario Ministry of Tourism, Culture and Sport, and the responsibility for the use and interpretation of these data is entirely that of the authors.

Table 4.0: Total Tourism Related Establishments

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Total Establishments - All Industries	113,038	76,659	31,794	2,815	989	781
Total Tourism Related	14,631	6,986	6,247	929	300	169
Accommodation	171	81	51	26	8	5
Arts, Entertainment and Recreation	986	602	260	76	27	21
Food and Beverage	2,682	749	1,357	395	147	34
Transportation	811	649	138	13	3	8
Travel Services	232	141	87	3	0	1
Retail	5,872	2,646	2,745	290	97	94
Other Services	3,877	2,118	1,609	126	18	6

Table 4.1: Accommodation

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Accommodation (Total)	171	81	51	26	8	5
Hotels	57	21	7	21	6	2
Motor Hotels	9	3	4	2	0	0
Resorts	6	5	1	0	0	0
Motels	33	15	17	1	0	0
Casino Hotels	0	0	0	0	0	0
Bed and Breakfast	14	10	4	0	0	0
Housekeeping Cottages and Cabins	5	4	0	0	1	0
All Other Traveller Accommodation	4	3	1	0	0	0
RV (Recreational Vehicle) Parks and Campgrounds	16	6	10	0	0	0
Hunting and Fishing Camps	13	10	3	0	0	0
Recreational (except Hunting and Fishing) and Vacation Camps	14	4	4	2	1	3

Table 4.2: Arts, Entertainment and Recreation

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Arts, Entertainment & Recreation (Total)	986	602	260	76	27	21
Art Dealers	30	23	7	0	0	0
Motion Picture and Video Exhibition	14	3	1	5	2	3
Theatre (except Musical) Companies	20	15	3	1	1	0
Musical Theatre and Opera Companies	5	5	0	0	0	0
Dance Companies	34	30	4	0	0	0
Other Performing Arts Companies	19	16	2	1	0	0
Sports Teams and Clubs	32	26	3	1	1	1
Horse Race Tracks	77	56	19	2	0	0
Other Spectator Sports	75	72	3	0	0	0
Live Theatres and Other Performing Arts Presenters with Facilities	14	9	4	1	0	0
Sports Stadiums and Other Presenters with Facilities	13	11	1	1	0	0
Performing Arts Promoters (Presenters) without Facilities	24	19	5	0	0	0
Festivals without Facilities	21	16	4	1	0	0
Sports Presenters and Other Presenters without Facilities	25	15	10	0	0	0
Non-Commercial Art Museums and Galleries	7	1	4	1	1	0
History and Science Museums	5	0	4	0	1	0
Other Museums	4	1	3	0	0	0
Historic and Heritage Sites	7	3	4	0	0	0
Zoos and Botanical Gardens	3	2	0	0	0	1
Nature Parks and Other Similar Institutions	0	0	0	0	0	0
Amusement and Theme Parks	8	6	1	1	0	0
Amusement Arcades	23	10	11	2	0	0
Casinos (except Casino Hotels)	2	0	1	1	0	0
All Other Gambling Industries	19	10	6	3	0	0
Golf Courses and Country Clubs	77	20	10	26	10	11
Skiing Facilities	0	0	0	0	0	0
Marinas	12	3	8	0	1	0
Fitness and Recreational Sports Centres	222	120	74	19	6	3
Bowling Centres	18	5	10	2	1	0
All Other Amusement and Recreation Industries	176	105	58	8	3	2

Table 4.3: Food and Beverage

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Food & Beverage (Total)	2,682	749	1,357	395	147	34
Full-Service Restaurants	1,139	284	570	181	90	14
Limited-Service Eating Places	1,236	289	690	189	52	16
Caterers	147	91	40	9	4	3
Mobile Food Services	62	53	7	2	0	0
Drinking Places (Alcoholic Beverages)	98	32	50	14	1	1

Table 4.4: Transportation

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Transportation (Total)	811	649	138	13	3	8
Scheduled Air Transportation	12	5	4	2	0	1
Non-Scheduled Chartered Air Transportation	16	13	2	1	0	0
Non-Scheduled Specialty Flying Services	14	12	2	0	0	0
Passenger Rail Transportation	0	0	0	0	0	0
Deep Sea, Coastal and Great Lakes Water Transportation (except by Ferries)	8	4	3	0	0	1
Deep Sea, Coastal and Great Lakes Water Transportation by Ferries	1	0	1	0	0	0
Inland Water Transportation (except by Ferries)	2	2	0	0	0	0
Inland Water Transportation by Ferries	0	0	0	0	0	0
Urban Transit Systems	5	3	0	0	1	1
Interurban and Rural Bus Transportation	4	3	1	0	0	0
Taxi Service	521	476	40	2	1	2
Limousine Service	51	38	13	0	0	0
Charter Bus Industry	8	4	0	2	1	1
Other Transit and Ground Passenger Transportation	30	22	3	3	0	2
Scenic and Sightseeing Transportation, Land	3	1	2	0	0	0
Scenic and Sightseeing Transportation, Water	4	3	0	1	0	0

Scenic and Sightseeing Transportation, Other	0	0	0	0	0	0
Passenger Car Rental	81	34	46	1	0	0
Truck, Utility Trailer and RV (Recreational Vehicle) Rental and Leasing	51	29	21	1	0	0

Table 4.5: Travel Services

	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Travel Services (Total)	232	141	87	3	0	1
Travel Agencies	174	100	70	3	0	1
Tour Operators	21	13	8	0	0	0
Other Travel Arrangement and Reservation Services	37	28	9	0	0	0

Table 4.6: Retail and Other Services

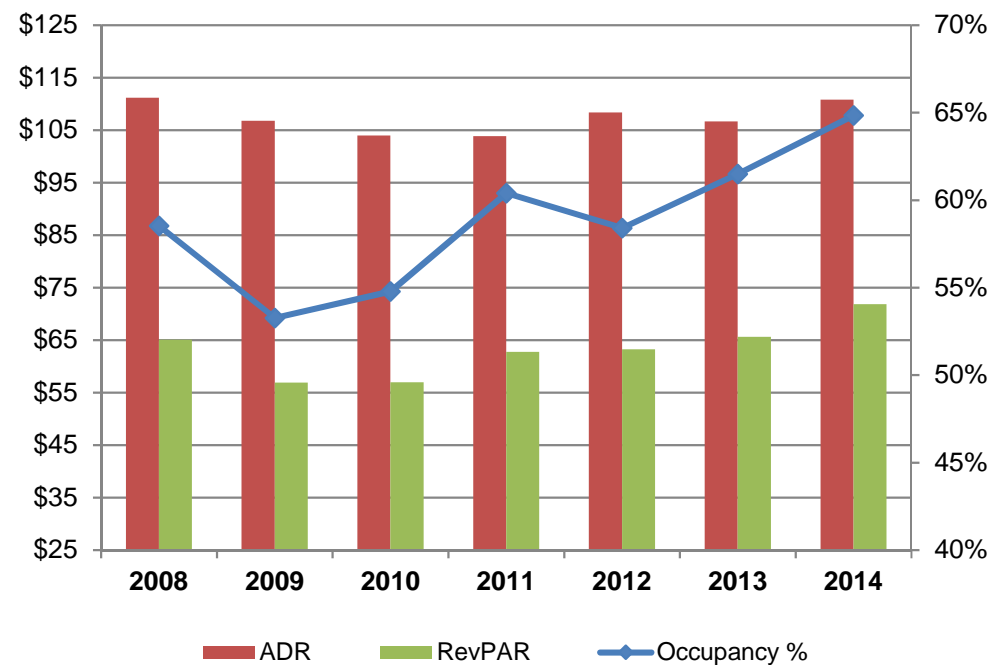
	Number of Establishments by Size of Employment					
	Total	0	1 to 19	20 to 49	50 to 99	100+
Retail (Total)	5,872	2,646	2,745	290	97	94
Other Services (Total)	3,877	2,118	1,609	126	18	6

Source: Statistics Canada's Canadian Business Patterns, 2014
[Definitions and Concepts used in Business Register](#)

Hotel Statistics

	2008	2009	2010	2011	2012	2013	2014
Occupancy Rate	58.5%	53.3%	54.8%	60.4%	58.4%	61.5%	64.8%
Average Daily Rate	\$111.16	\$106.80	\$103.94	\$103.84	\$108.33	\$106.66	\$110.77
Revenue per Available Room	\$65.06	\$56.89	\$56.94	\$62.72	\$63.26	\$65.60	\$71.82

**REGION 3 - Hamilton, Halton and Brant
Hotel Occupancy, ADR and RevPAR Results
2008-2014**



6.10 Westfield Heritage Village

Westfield is a stunning collection of over 30 historical buildings which has made Westfield one of the most interesting historical destinations in Ontario. Carefully restored and staffed with costumed interpreters, the buildings capture the true charm and spirit of early Canadian culture. Visitors may witness living history demonstrations and take part in guided tours of the 130-hectare site which is bordered by beautiful woodlands, meadows and trails. Westfield also offers a variety of education programs. Groups can choose from several options, available on weekends and weekdays, that are curriculum driven and come complete with teacher's kits. *Source: <https://conservationhamilton.ca/welcome-to-westfield-heritage-village/>*

Westfield was previously owned by the City of Hamilton. Under HCA's management and through the guidance of a managed forest plan approver, a forest inventory and harvest plan was prepared for several of the conifer plantations on the property. The Hamilton Conservation Authority acquired the property in 2015 and has subsequently increased the size of the property through additional land acquisitions to the west.

In 2016 approximately 33.8 ha (83.5 ac) of conifer plantations were marked for thinning. The thinning is scheduled for winter 2018.



Managed Forest Summary

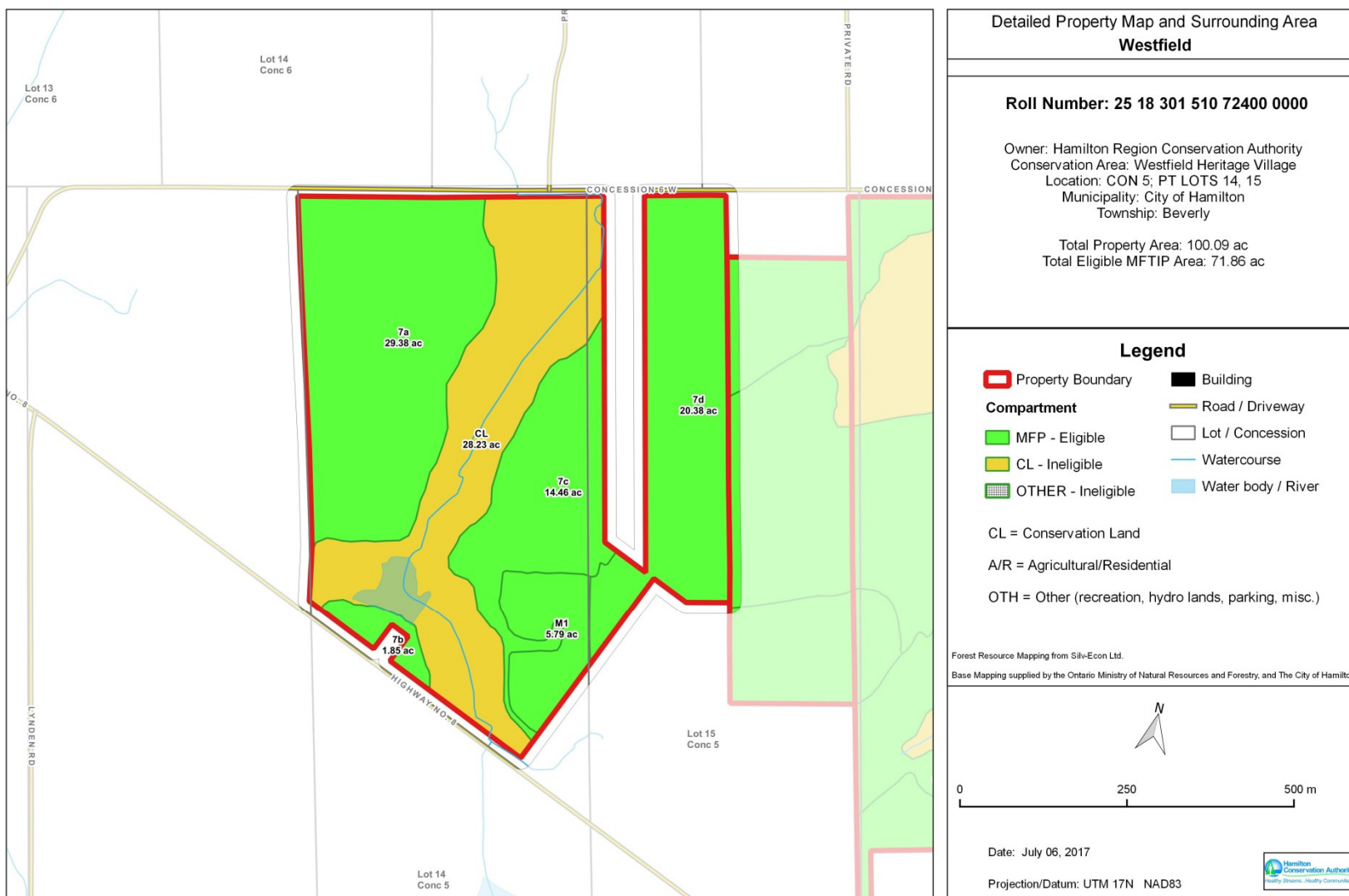
Roll Number (5-digit)	Forest Type 1	Area1 (ac)	Forest Type 2	Area2 (ac)	Forest Type 3	Area 3 (ac)	Forest Type 4	Area 4 (ac)	Total Area (ac)
72400	Upland Hardwoods	31.23	Mixedwoods	14.46	Conifer Plantation	20.38	Meadow/Open	5.79	71.86
69800	Upland Hardwoods	14.31	Conifer Plantation	15.45					29.76
67400	Upland Hardwoods	60.43	Conifer Plantation	167.85	Mixedwoods	13.92			242.20

Other Vegetation Observed	Invasive Species Observed	Wildlife Habitat Features			
Red-osier dogwood Wild rose Prickly gooseberry Wild red raspberry Leatherwood Elderberry Virginia Creeper	European honeysuckle Buckthorn	Snags	Cavities	Coarse Woody Debris	Mast Species
		Abundant	Few	Abundant	American beech Walnut Red oak White oak

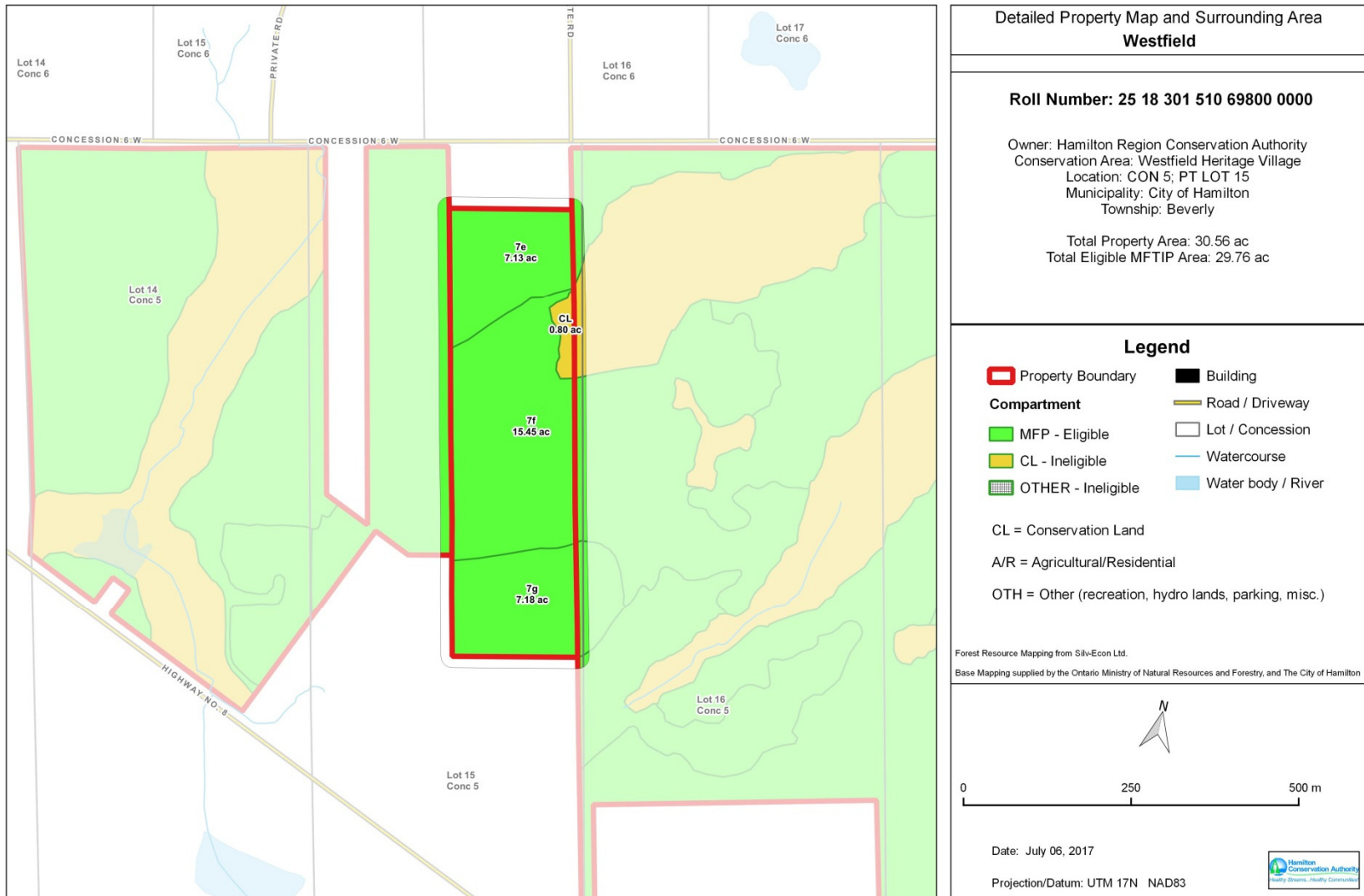
Forest Inventory										
Comp	Area (ac)	Forest Type	Trees ≥ 10 cm DBH						Regeneration (advanced > 1m)	
			Species Composition ¹	Age (yrs)	Height (m)	Avg. DBH ² (cm)	Density (stems/ha)	Basal Area ³ (m ² /ha)	Species Composition	Density (stems/ha)
7a	29.38	Upland Hardwoods	lw2 Mh2 Ow2 Ag1 (Bb Be Cb Po Ps Wn)3	43	17	16	567	13.3	Bt5 Cb2 lw1 Ag1	2667
7b	1.85	Upland Hardwoods	Ag2 Bb1 Cb1 Ce1 lw1 Mh1 Ow1 Po1	30	16	16	902	18	Bt6 Cb3 Ag1	7000
7c	14.46	Mixedwoods	Pw4 Po2 Cb1 El1 Mh1 Or1 (Ow)	30	19	18	797	22	Haw8 Ag2	5000
7d	20.38	Conifer Plantation	Pw9 Ps1	40	29	12	232	15	Ps5 Haw5	1000
M-1	5.79	Woodland Meadow								
7e	7.13	Upland Hardwoods	Mh9 Or1	80	24	28	626	28	Be10	1000
7f	15.45	Conifer Plantation	Pr6 Ps2 Bd1 Cb1 (Or)	50	19	21	1140	34	Ag6 Be1 Cb1 Ow1	7000
7g	7.18	Upland Hardwoods	Mh7 Or2 Hi1	80	21	28	719	24	none	0

Forest Inventory										
Comp	Area (ac)	Forest Type	Trees ≥ 10 cm DBH						Regeneration (advanced > 1m)	
			Species Composition ¹	Age (yrs)	Height (m)	Avg. DBH ² (cm)	Density (stems/ha)	Basal Area ³ (m ² /ha)	Species Composition	Density (stems/ha)
7h	4.97	Upland Hardwoods	Mh9 Or1	80	24	28	626	28	Be10	1000
7i	3.70	Conifer Plantation	Pw7 Ce2 Sw1 (Cb El Mh OH Ps)	53	21	23	986	35.3	Ag4 Bt4 Mh2 (Pw Sw)	4833
7j	53.18	Upland Hardwoods	Mh8 Bd1 Or1 (Ow Pw)	45	19	22	773	22	Ag4 lw4 Bt1 Mh1	3333
7k	22.29	Conifer Plantation	Pw9 Sw1	60	25	24	758	38	Bt5 Sw3 Ag2	6000
7l	2.28	Upland Hardwoods	Mh4 lw2 Or2 Bd1	60	27	23	284	16	Ag10	2000
7m	13.92	Mixedwoods	Pw5 Mr2 Wn2	30	18	16	56	4	none	0
7n	106.23	Conifer Plantation	Pw7 Ce2 Sw1 (Cb El Mh OH Ps)	53	21	23	986	35.3	Ag4 Bt4 Mh2 (Pw Sw)	4833
7o	35.63	Conifer Plantation	Pw4 Sn3 Ab1 Cb1 Sw1 (Ag Cp)	67	23	26	1078	44.7	Cb8 El2	1667

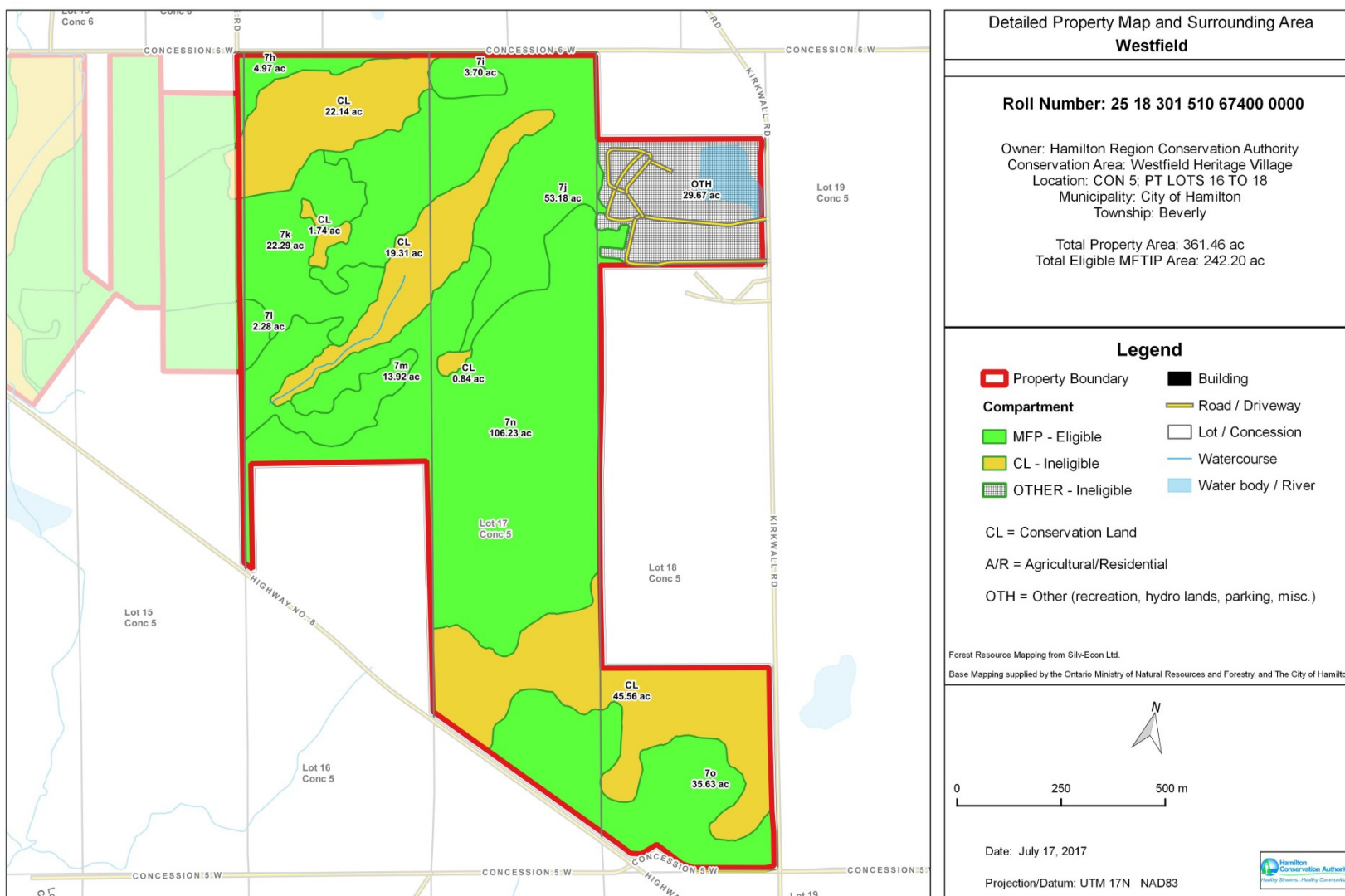
Detailed Property Maps



HAMILTON CONSERVATION AUTHORITY MANAGED FOREST PLAN



HAMILTON CONSERVATION AUTHORITY MANAGED FOREST PLAN



Section 7 : Ten Year Activity Summary 2018-2027

The following management activities are recommended for the 2018-2027 operating period.

Forest Health & Ecological Diversity

Control Invasive plants

- The Ontario Invasive Plant Council recommends creating a feasible, long-term strategy for managing invasive species. Many of the managed forest compartments have been colonized by buckthorn and other invasive plant species. Buckthorn is particularly problematic because it is the dominant species in the regeneration of a number of the compartments. Managing the buckthorn is an important silvicultural objective in maintaining a healthy and productive forest.

Manage Red Pine Decline

- A number of the red pine plantations are declining as a result of root diseases. The HCA has been thinning these plantations to mitigate the effects of the decline in the overstory and promote natural regeneration. Many of the plantations also lack desirable regeneration and some are heavily colonized by buckthorn. Controlling the buckthorn and restoring regeneration through underplanting is highly recommended.

Monitor Invasive Insects

- Many, if not all, of the mature ash in the managed forest have been affected by Emerald Ash Borer. Fortunately ash is commonly found in the regeneration of many stands and it is unlikely that ash species will disappear from the managed forest.
- Hemlock stands are at risk from Hemlock woolly adelgid (HWA). Hemlock is dominant/co-dominant in Fletcher compartment 1f and Beverly Swamp compartment 4b and is a minor species in several other compartments. These stands should be monitored for signs of HWA and report infected stands to the Canadian Food Inspection Agency (CFIA). Silv-Econ is coordinating a working group of forest managers/owners who have hemlock stands on their properties. The HCA may wish to participate in this working group.

Wildlife & Nature Appreciation

Conserve Habitat Features

- Wildlife habitats can be conserved or enhanced by retaining snags, fallen trees and logs, and trees with cavities.
- Mitigating the impacts from management activities on Species At Risk and other wildlife may require modifications to conventional silvicultural activities, establishing buffers around critical habitat, and seasonal restrictions for undertaking management activities, among other mitigation measures.

Recreation

- There is an extensive network of recreational trails throughout most of the managed forest. Maintaining the trails by trimming vegetation, removing fallen logs and hazard trees, and making repairs when required is recommended.

Forest Products

- A second thinning of the conifer plantations at Christie, Dundas Valley, Mt. Albion, Valens, and Westfield Heritage Village can be considered during the 2018-2027 operating period.
- There are approximately 115 acres of conifer plantations at Fletcher Creek that could also be considered for thinning during the 2018-2027 operating period.



SILV-ECON LTD.
RESOURCE MANAGEMENT CONSULTANTS

Section 9 : Where To Go For Assistance

David Puttock, R.P.F., Silv-Econ Ltd., 913 Southwind Ct., Newmarket, ON L3Y 6J1
 phone: (905) 898-3085; fax: (905) 898-2722; email: silvecon@rogers.com;
 website: <http://www.silvecon.com>

Native Tree and Shrubs

Somerville Nurseries
 P.O. Box 70, Alliston, Ontario. L9R 1T9
 (705) 435-6258, fax (705) 435-4230

St. Williams Nursery & Ecology Centre
 885 Norfolk county Hwy 24
 St. Williams, ON N0E 1P0
 (519) 586-9916

Landowner Support & Publications

Forests Ontario

144 Front Street West, Suite 700
 Toronto, ON M5J 2L7
 Toll Free: 1-877-646-1193
 Local: 416-646-1193
 Fax: 416-493-4608
 Website: www.forestsontario.ca

Ontario Woodlot Association

RR # 4, 275 County Road 44
 Kemptville, ON K0G 1J0
 888-791-1103
www.ont-woodlot-assoc.org

Landowner Resource Centre

Box 599, 5524 Dickinson Street
 Manotick, ON K4M 1A5
 613-692-2390
www.lrconline.com

Section 10 : References

Anderson, H. 2012. Invasive Common (European) Buckthorn (*Rhamnus cathartica*): Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, Ontario. 23pp + Appendices.

Dwyer, J. 2003. Nature Counts Project Hamilton Natural Areas Inventory – Species Checklist. Hamilton Naturalists’ Club: Hamilton, Ontario.

Heagy, A. 1993. Hamilton-Wentworth Natural Areas Inventory Vol II: Site Summaries. Hamilton Naturalists’ Club. Hamilton, Ontario.

Heagy, A. 1995. Hamilton-Wentworth Natural Areas Inventory: Vol I. Hamilton Naturalists’ Club. Hamilton, Ontario.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Lee, H. T. 2008. Updates to the First Approximation Southern Ontario Ecological Land Classification (Open Document). Ontario Ministry of Natural Resources.

Ministry of Natural Resources. 2004. Ontario Tree Marking Guide, Version 1.1. Ontario Ministry of Natural Resources. Queen’s Printer for Ontario. Toronto. 228p.

Ministry of Natural Resources. 2000. A Silvicultural Guide to Managing Southern Ontario Forests. Ontario Ministry of Natural Resources. Queen’s Printer for Ontario, Toronto, Ontario. 648p.

Ministry of Natural Resources. 1996. Restoring old-growth features to managed forests in southern Ontario. LandOwner Resource Centre LRC 27. Ontario Ministry of Natural Resources. Queen’s Printer for Ontario. Toronto. 8p.

Schwetz, N. (ed). 2014. **a.** Natural Areas Inventory Project 3rd Edition 2014. Site Summaries Document. Nature Counts 2 Project. Hamilton Conservation Authority. 753pp.

Schwetz, N. (ed). 2014. **b.** Natural Areas Inventory Project 3rd Edition 2014. Species Checklist Document. Nature Counts 2 Project. Hamilton Conservation Authority. 287pp.

Section 11 : Tree Species & Species Abbreviations

Abbreviation	Species	Abbreviation	Species
Ag	green ash	Mst	Striped maple
Ap	apple	Nb	Nannyberry
Aw	white ash	Ob	bur oak
Bd	basswood	OC	other conifers
Be	American beech	OH	other hardwood
Bf	balsam fir	Or	red oak
Bn	butternut	Ow	white oak
Bt	European buckthorn	Pa	Austrian pine
Bw	white birch	Pb	balsam poplar
By	yellow birch	Pg	large tooth aspen
Cb	black cherry	Ph	hybrid poplar
Cc	choke cherry	Pj	jack pine
Ce	white cedar	Po	poplar species
El	elm	Pr	red pine
Ha	hawthorn	Ps	Scots pine
Hac	hackberry	Pt	trembling aspen
He	eastern hemlock	Pw	white pine
Hi	bitternut hickory	Sas	sassafras
Hs	shagbark hickory	Sb	black spruce
Iw	ironwood	Sc	blue spruce
La	European larch	Sn	Norway spruce
Lb	black locust	Sw	white spruce
Lh	Honey locust	Syc	American sycamore
Mash	mountain ash	Ta	tamarack
Mb	black maple	Tu	tulip tree
Mh	sugar maple	Wi	willow
Mm	Manitoba maple	Wn	black walnut
Mr	red maple		
Ms	silver maple		

City of Hamilton Register of Property of Cultural Heritage Value or Interest

Section A-2: Reasons for Designation OR Statement of Cultural Heritage Value or Interest and Description of Heritage Attributes under Part IV of the *Ontario Heritage Act*

Flamborough**Westfield Heritage Village**

Date of Construction: 1854

1049 KIRKWALL RD

Former Address:

By-Law Number: 02-270-H

Easement:

National Historic Site:

The property known as Westfield Heritage Village located within the Westfield Heritage Conservation Area comprises a collection of approximately thirty-five (35) structures relocated from various sites in the Counties of Brant, Wellington and Halton and the municipalities that comprised the former Regional Municipality of Hamilton Wentworth.

Eight (8) structures that were previously located in the former Regional Municipality of Hamilton-Wentworth are considered to be of historic and architectural value or interest as examples of rural, vernacular, building construction primarily associated with early Euro-Canadian settlers. These associations include their rural craft traditions, use of building materials, construction techniques and settlement activities. These activities include farming, house building, rural commerce and industry, religious worship and transportation.

The eight buildings, including all facades, entranceways, porches, windows, chimneys and roofs, together with construction materials and building techniques subject to this designation are:

1. The Queen's Rangers (Settler's) Cabin: a circa 1793, single storey and a half, side gable, squared White Oak log structure;
2. The Bamberger House: a circa 1820, two storey, side gable, Pine log house;
3. The Blacksmith House: a circa 1828, single storey and a half, side gable, round log structure;
4. The Misner House: an 1832, single storey and a half, side gable, timber frame house clad in clapboard;
5. The Marr Cabinet Maker's Shop: a circa 1840, single storey and a half, front gable, timber frame barn and carpentry workshop clad in board-and-batten;
6. The McRobert's Dry Goods Store: an 1850, storey and a half, red-brick, commercial building with boom-town front with pitch roof;
7. The Mountsberg Episcopal Methodist Church: an 1854, single storey, timber frame church clad in clapboard; and
8. The Jerseyville Railway Station: an 1896, single storey, timber frame, board- and-batten clad structure.

APPENDIX 10 NATURAL INVENTORY – SPECIES LIST

APPENDIX 10.1 BIRDS

APPENDIX 10.2 HERPETOFAUNA

APPENDIX 10.3 LEPIDOPTERA

APPENDIX 10.4 MAMALS

APPENDIX 10.5 PLANTS

Source: Hamilton Conservation Authority

BIRDS

Westfield Master Plan Natural Inventory

Appendix 10.1

OBSV 2016	OBSV 2017	ID	Species Code	Scientific Name	Common Name	Native Status	Interior Species	City of Hamilton Status	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	x	8	B-AMCR	Corvus brachyrhynchos	American Crow	N			G5	S5B			
x	x	9	B-AMGO	Carduelis tristis	American Goldfinch	N			G5	S5B			
x	x	14	B-AMRO	Turdus migratorius	American Robin	N			G5	S5B			
	x	16	B-AMWO	Scolopax minor	American Woodcock	N			G5	S4B			
x		30	B-BAOR	Icterus galbula	Baltimore Oriole	N			G5	S4B			
	x	34	B-BAWW	Mniotilta varia	Black-and-white Warbler	N	Y	uncommon	G5	S5B			
x		35	B-BBCU	Coccyzus erythrophthalmus	Black-billed Cuckoo	N		uncommon	G5	S5B			
x	x	42	B-BCCH	Poecile atricapillus	Black-capped Chickadee	N			G5	S5			
x	x	55	B-BLJA	Cyanocitta cristata	Blue Jay	N			G5	S5			
x	x	88	B-BWWA	Vermivora pinus	Blue-winged Warbler	N		uncommon	G5	S4B			
	x	78	B-BRWA	Vermivora X "Brewster's"	Brewster's Warbler	N							
x		86	B-BWHA	Buteo platypterus	Broad-winged Hawk	N	Y	rare	G5	S5B			
x		77	B-BRTH	Toxostoma rufum	Brown Thrasher	N		uncommon	G5	S4B			
x		49	B-BHCO	Molothrus ater	Brown-headed Cowbird	N			G5	S4B			
x		91	B-CAGO	Branta canadensis	Canada Goose	I			G5	S5			
x	x	104	B-CEDW	Bombycilla cedrorum	Cedar Waxwing	N			G5	S5B			
x	x	106	B-CHSP	Spizella passerina	Chipping Sparrow	N			G5	S5B			
x		115	B-COGR	Quiscalus quiscula	Common Grackle	N			G5	S5B			
x		127	B-COYE	Geothlypis trichas	Common Yellowthroat	N			G5	S5B			
	x	133	B-DEJU	Junco hyemalis	Dark-eyed Junco	N			G5	S5B			
x		136	B-DOWO	Picoides pubescens	Downy Woodpecker	N			G5	S5			
x		140	B-EAKI	Tyrannus tyrannus	Eastern Kingbird	N			G5	S4B			
x	x	144	B-EATO	Pipilo erythrophthalmus	Eastern Towhee	N		uncommon	G5	S4B			
x		149	B-EUST	Sturnus vulgaris	European Starling	I			G5	SNA			
x	x	154	B-FISP	Spizella pusilla	Field Sparrow	N			G5	S4B			
x	x	175	B-GRCA	Dumetella carolinensis	Gray Catbird	N			G5	S4B			
	x	187	B-GBHE	Ardea herodias	Great Blue Heron	N		uncommon	G5	S4			
x	x	163	B-GCFL	Myiarchus crinitus	Great Crested Flycatcher	N			G5	S5B			
x		196	B-HAWO	Picoides villosus	Hairy Woodpecker	N	Y	uncommon	G5	S5			

BIRDS

Westfield Master Plan Natural Inventory

OBSV 2016	OBSV 2017	ID	Species Code	Scientific Name	Common Name	Native Status	Interior Species	City of Hamilton Status	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x		215	B-KILL	Charadrius vociferus	Killdeer	N			G5	S5B, S5N			
x		248	B-MALL	Anas platyrhynchos	Mallard	N			G5	S5			
x		256	B-MODO	Zenaida macroura	Mourning Dove	N			G5	S5			
	x	263	B-NOCA	Cardinalis cardinalis	Northern Cardinal	N			G5	S5			
x	x	285	B-OVEN	Seiurus aurocapillus	Ovenbird	N	Y		G5	S4B			
x		301	B-PIWO	Dryocopus pileatus	Pileated Woodpecker	N	Y	uncommon	G5	S5			
	x	300	B-PIWA	Dendroica pinus	Pine Warbler	N	Y	uncommon	G5	S5B			
x	x	321	B-REVI	Vireo olivaceus	Red-eyed Vireo	N			G5	S5B			
x	x	346	B-RWBL	Agelaius phoeniceus	Red-winged Blackbird	N			G5	S4			
x		311	B-RBGR	Pheucticus ludovicianus	Rose-breasted Grosbeak	N			G5	S4B			
x		343	B-RUGR	Bonasa umbellus	Ruffed Grouse	N		uncommon	G5	S4			
x		358	B-SCTA	Piranga olivacea	Scarlet Tanager	N	Y	uncommon	G5	S4B			
x	x	374	B-SOSP	Melospiza melodia	Song Sparrow	N			G5	S5B			
x	x	403	B-TUVU	Cathartes aura	Turkey Vulture	N		uncommon	G5	S5B			
	x	409	B-VIRA	Rallus limicola	Virginia Rail	N		uncommon	G5	S5B			
x		414	B-WBNU	Sitta carolinensis	White-breasted Nuthatch	N	Y		G5	S5			
	x	434	B-WITU	Meleagris gallopavo	Wild Turkey	(I)		common	G5	S5			
x		428	B-WIFL	Empidonax traillii	Willow Flycatcher	N			G5	S5B			
x	x	456	B-YWAR	Dendroica petechia	Yellow Warbler	N			G5	S5B			
x	x	145	B-EAWP	Contopus virens	Eastern Wood-Pewee	N			G5	S4B	SC	SC	COSEWIC - Nov 2012
x		185	B-GRSP	Ammodramus savannarum	Grasshopper Sparrow	N		uncommon	G4	S4B	SC	SC	
	x	322	B-RHWO	Melanerpes erythrocephalus	Red-headed Woodpecker	N		rare	G5	S4B	THR	SC	SARA Schedule 4
x	x	439	B-WOTH	Hylocichla mustelina	Wood Thrush	N		uncommon	G5	S4B	THR	SC	COSEWIC - Nov 2012
x		268	B-NOHA	Circus cyaneus	Northern Harrier	N		rare	G5	S4B			
Species total		54											

HERPETOFAUNA

Westfield Master Plan Natural Inventory

Appendix 10.2

OBSV 2016	OBSV 2017	ID	Species Code	Scientific Name	Common Name	Native Status	Interior Species	City of Hamilton	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	x	664	H-EAGA	Thamnophis sirtalis sirtalis	Eastern Garter Snake	N			G5T5	S5			
x	x	705	H-TGTF	Hyla versicolor	Gray Treefrog	N			G5	S5			
x		670	H-GRFR	Rana clamitans	Green Frog	N			G5	S5			
x		685	H-PIFR	Rana palustris	Pickerel Frog	N		rare	G5	S4			
x		700	H-SPPE	Pseudacris crucifer	Spring Peeper	N			G5	S5			
x		710	H-WOFR	Rana sylvatica	Wood Frog	N			G5	S5			
	x	652	H-AMTO	Bufo americanus americanus	Eastern American Toad	N			G5	S5			
			Species total		7								

LEPIDOPTERA

Westfield Master Plan Natural Inventory

Appendix 10.3

OBSV 2017	ID	Species Code	Scientific Name	Common Name	Native Status	Interior Species	City of Hamilton	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	725	L-BLSW	Papilio polyxenes	Black Swallowtail	N			G5	S5			
x	806	L-MOCL	Nymphalis antiopa	Mourning Cloak	N			G5	S5			
x	808	L-MONA	Danaus plexippus	Monarch	N			G5	S2N, S4B	END	SC	SARA Schedule 4
x	851	L-SPAZ	Celastrina argiolus	Spring Azure	N			G4G5	SU			
Species		4										

MAMMALS

Westfield Master Plan Natural Inventory

Appendix 10.4

OBSV 2016	OBSV 2017	ID	Species Code	Scientific Name	Common Name	Native Status	Interior Species	City of Hamilton	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	x	875	M-BBBA	Eptesicus fuscus	Big Brown Bat	N		UNCERTAIN	G5	S5			
	x	888	M-COYO	Canis latrans	Coyote	N		common	G5	S5			
x		893	M-EACH	Tamias striatus	Eastern Chipmunk	N		common	G5	S5			
	x	894	M-EACO	Sylvilagus floridanus	Eastern Cottontail	N		common	G5	S5			
	x	906	M-GRSB	Sciurus carolinensis	Eastern Gray Squirrel Black Phase	N		common	G5	S5			
	x	916	M-LBBA	Myotis lucifugus	Little Brown Bat	N		UNCERTAIN	G5	S4	END	END	Nov 2013
	x	938	M-RACC	Procyon lotor	Raccoon	N		common	G5	S5			
x	x	941	M-RESQ	Tamiasciurus hudsonicus	Red Squirrel	N		common	G5	S5			
x		962	M-WTDE	Odocoileus virginianus	White-tailed Deer	N		common	G5	S5			
Species total	9												

PLANTS

Westfield Master Plan Natural Inventory

Appendix 10.5

2016 & 2017 Surveys	OBSV 2016	ID	Species Code	Scientific Name	Common Name	City of Hamilton Status	Current Scientific Name	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	x	1144	P-ACESACC	Acer saccharinum	Silver Maple	common		G5	S5			
x	x	1145	P-ACESANI	Acer saccharum nigrum	Black Maple	common	Acer nigrum	G5	S4?			
		1146	P-ACESASA	Acer saccharum saccharum	Sugar Maple	common	Acer saccharum ssp. saccharum	G5	S5			
x	x	1148	P-ACEXFRE	Acer x freemanii	Freeman's Maple	common		GNA	SNA			
x		1153	P-ACHMILL	Achillea millefolium	Yarrow	common		G5	SNA			
x	x	1149	P-ACH_SP	Achillea sp.	Yarrow Species							
x	x	1168	P-ACTPACH	Actaea pachypoda	White Baneberry	common		G5	S5			
x	x	1169	P-ACTRUBR	Actaea rubra	Red Baneberry	common		G5	S5			
x	x		P-AGRGRYP	Agrimonia gryposepala	Yellow Agrimony	common		G5	S5			
x	x	1192	P-AGR_SP	Agrimonia sp.	Agrimonia Species							
x		1195	P-AGRGIGA	Agrostis gigantea	Redtop	common		G4G5	SNA			
x	x	1225	P-ALLPETI	Alliaria petiolata	Garlic Mustard	common		GNR	SNA			
x	x	1231	P-ALLTRIC	Allium tricoccum	Wild Leek	common		G5	S4			
x	x		P-AMBARTE	Ambrosia artemisiifolia	Common Ragweed			G5	S5			
x	x	1264	P-AMB_SP	Ambrosia sp.	Ragweed Speices							
		1272	P-AMELAEV	Amelanchier laevis	Smooth Juneberry	common		G4G5Q	S5			
x	x	1268	P-AME_SP	Amelanchier sp.	Serviceberry Species							
x	x	1301	P-ANECANA	Anemone canadensis	Canada Anemone	common		G5	S5			
x	x	1306	P-ANEQUIN	Anemone quinquefolia	Wood-anemone	common		G5	S5			
x		1325	P-ANTNEGL	Antennaria neglecta	Smooth Pussytoes	common		G5	S5			
		1345	P-APOANAN	Apocynum androsaemifolium androsaemifolium	Spreading Dogbane	common	Apocynum androsaemifolium	G5	S5			
x	x	1350	P-AQUCANA	Aquilegia canadensis	Wild Columbine	common		G5	S5			
x		1379	P-ARCLAPP	Arctium lappa	Great Burdock	common		GNR	SNA			
		1389	P-ARESERP	Arenaria serpyllifolia	Thyme-leaved Sandwort	common		GNR	SNA			
x		1402	P-ARITRTR	Arisaema triphyllum triphyllum	Jack-in-the-pulpit	common	Arisaema triphyllum	G5	S5			
x	x	1432	P-ASACANA	Asarum canadense	Wild Ginger	common		G5	S5			
x	x	1434	P-ASCEXAL	Asclepias exaltata	Poke Milkweed	common		G5	S4			
x	x	1436	P-ASCININ	Asclepias incarnata incarnata	Swamp Milkweed	common		G5	S5			
x	x	1441	P-ASCSYRI	Asclepias syriaca	Common Milkweed	common		G5	S5			
		1473	P-ASTERER	Aster ericoides ssp. ericoides	Heath Aster	common	Symphyotrichum ericoides var. ericoides	G5T?	S5			
x	x		P-ASTLAHE	Aster lanceolatus ssp. hesp	Panicked Aster	common		G5T5?	S5			
		1480	P-ASTLALN	Aster lanceolatus ssp. lanceolatus	Tall White Aster	common	Symphyotrichum lanceolatum ssp. lanceolatum	G5	S5			species code changed due to duplication of species code in NHIC, only last letter was changed
		4791	P-ASTLAHI	Aster lateriflorus var. hirsuticaulis	Calico Aster	common	Symphyotrichum lateriflorum var. hirsuticaule	G5T?	S4?			
x	x	1487	P-ASTNOVA	Aster novae-angliae	New England Aster	common	Symphyotrichum novae-angliae	G5	S5			
x		1496	P-ASTPUPU	Aster puniceus var. puniceus	Purple-stemmed Aster	common	Symphyotrichum puniceum v. puniceum	G5	S5			
x	x	1456	P-AST_SP	Aster sp.	Aster Species							
x	x	1504	P-ASTUROP	Aster urophyllus	Arrow-leaved Aster	common	Symphyotrichum urophyllum	G4	S4			
x		1508	P-ATHFIAN	Athyrium filix-femina var. angustum	Northeastern Lady Fern	common		G5T5	S5			

PLANTS

Westfield Master Plan Natural Inventory

Appendix 10.5

2016 & 2017 Surveys	OBSV 2016	ID	Species Code	Scientific Name	Common Name	City of Hamilton Status	Current Scientific Name	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x		1556	P-BETPAPY	Betula papyrifera	White Birch	common		G5	S5			
x	x	1570	P-BIDFRON	Bidens frondosa	Devil's Beggar-ticks	common		G5	S5			
x	x	1611	P-BRO SP	Bromus sp.	Brome Species							
x	x	1737	P-CARCONC	Cardamine concatenata	Cutleaf Toothwort	common		G5	S5			
x		1760	P-CARDOUG	Cardamine douglassii	Pink Spring Cress	common		G5	S4			
x	x	1745	P-CARCRIS	Carex cristatella	Crested Sedge	common		G5	S5			
x	x	1770	P-CARFLAV	Carex flava	Yellow Sedge	common		G5	S5			
x	x	1856	P-CARPEDU	Carex pedunculata	Peduncled Sedge	common		G5	S5			
x	x	1858	P-CARPENS	Carex pennsylvanica	Pennsylvania Sedge	common		G5	S5			
x	x	1875	P-CARROSE	Carex rosea	Sedge	common		G5	S5			
x	x	1688	P-CAR SP	Carex sp.	Sedge Species							
x	x	1893	P-CARSTRI	Carex stricta	Tussock Sedge	common		G5	S5			
x	x	1900	P-CARTENE	Carex tenera	Slender Sedge	common		G5	S5			
x	x	1729	P-CARCARO	Carpinus caroliniana	Blue-beech	common		G5	S5			
x	x	1740	P-CARCORD	Carya cordiformis	Bitternut Hickory	common		G5	S5			
x		1957	P-CAY SP	Carya sp.	Hickory Species							
x	x	1956	P-CAUTHAL	Caulophyllum thalictroides	Blue Cohosh	common		G4G5	S5			
x	x		P-CENJACE	Centaurea jacea	Brown Knapweed	common		GNR	SNA			
x	x	2006	P-CHAMACU	Chamaesyce maculata	Hairy-fruited Spurge	common		G5?	SNA			
x		2022	P-CHEGLAB	Chelone glabra	Turtlehead	common		G5	S5			
x	x	2046	P-CHRLEUC	Chrysanthemum leucanthemum	Ox-eye Daisy	common	Leucanthemum vulgare	GNR	SE5			
x		2054	P-CICMACU	Cicuta maculata	Spotted Water-hemlock	common		G5T5	S5			
x	x	2067	P-CIRLUCA	Circaea lutetiana canadensis	Enchanter's Nightshade	common	Circaea lutetiana ssp. canadensis	G5T5	S5			
x	x	2060	P-CIR SP	Circaea sp.	Enchanter's Nightshade Species							
x		2063	P-CIRDISC	Cirsium discolor	Field Thistle	rare		G5	S3			Tracked by NHIC
x	x	2073	P-CIS SP	Cirsium sp.	Thistle Species							
x	x	2071	P-CIRVULG	Cirsium vulgare	Bull Thistle	common		G5	SNA			
x	x	2079	P-CLAVIRG	Claytonia virginica	Narrow-leaved Spring Beauty	common		G5	S5			
x	x	2092	P-CLIVULG	Clinopodium vulgare	Wild Basil	common		G5	S5			
x	x	2117	P-CORALTE	Cornus alternifolia	Alternate-leaved Dogwood	common		G5	S5			
x		2119	P-CORAMOB	Cornus amomum obliqua	Silky Dogwood	common	Cornus amomum ssp. obliqua	G5T5	S5			
x	x	2127	P-CORFORA	Cornus foemina racemosa	Grey Dogwood	common	Cornus foemina ssp. racemosa	G5T5	S5			
x	x	2139	P-CORSTOL	Cornus stolonifera	Red-osier Dogwood	common	Cornus sericea ssp. sericea	G5	S5			
x	x	2153	P-CRA SP	Crataegus sp.	Hawthorn							
x	x	2269	P-DACGLOM	Dactylis glomerata	Orchard Grass	common		GNR	SNA			
x	x	2279	P-DATSTRA	Datura stramonium	Jimsonweed	common		GU	SNA			
x	x	2280	P-DAUCARO	Daucus carota	Queen Anne's Lace	common		GNR	SNA			
x	x	2307	P-DIARME	Dianthus armeria	Deptford Pink	common		GNR	SNA			
x		2325	P-DIPFUSY	Dipsacus fullonum sylvestris	Teasel	common	Dipsacus fullonum ssp. sylvestris	GNR	SNA			
x		2354	P-DRYCART	Dryopteris carthusiana	Spinulose Wood Fern	common		G5	S5			
x		2364	P-DRYMARG	Dryopteris marginalis	Marginal Wood Fern	common		G5	S5			
x	x	2393	P-ELAANGU	Elaeagnus angustifolia	Russian-olive	common		GNR	SNA			
x		2845	P-ELYHYST	Elymus hystrix	Bottle-brush Grass	common		G5	S5			
x	x	2451	P-EPIHELL	Epipactis helleborine	Helleborine	common		GNR	SNA			
x		2463	P-EQUFLUV	Equisetum fluviale	Water Horsetail	common		G5	S5			
x	x	2489	P-ERIANNU	Erigeron annuus	Annual Fleabane	common		G5	S5			

PLANTS

Westfield Master Plan Natural Inventory

Appendix 10.5

2016 & 2017 Surveys	OBSV 2016	ID	Species Code	Scientific Name	Common Name	City of Hamilton Status	Current Scientific Name	GRANK	SRANK	COSEWIC	OMNR Status	Comments
x	x	2536	P-EUOBOV	Euonymus obovata	Running Strawberry-bush	common		G5	S5			
x		2551	P-EUPMAMA	Eupatorium maculatum	Spotted Joe-Pye-weed	common		G5T?	S5			
x	x	2557	P-EUPPERF	Eupatorium perfoliatum	Boneset	common		G5	S5			
x	x	2537	P-EUP_SP	Eupatorium sp.	Joe-pye Weed Species							
x		2542	P-EUPCYP	Euphorbia cyparissias	Cypress Spurge	common		G5	SNA			
x	x	2565	P-EUTGRAM	Euthamia graminifolia	Grass-leaved Goldenrod	common		G5	S5			
x		2567	P-FAGESCU	Fagopyrum esculentum	Buckwheat	common		GNR	SNA			
x		2568	P-FAGGRAN	Fagus grandifolia	American Beech	common		G5	S4			
x	x	2591	P-FORVIRI	Forsythia viridissima	Forsythia	common		GNR	SNA			
x	x	2592	P-FRA_SP	Fragaria sp.	Strawberry Species							
x	x	2600	P-FRAVEAM	Fragaria vesca americana	Woodland Strawberry	common	Fragaria vesca ssp. americana	G5	S5			
x		2593	P-FRAAMER	Fraxinus americana	White Ash	common		G5	S4			
x		2596	P-FRANIGR	Fraxinus nigra	Black Ash	common		G5	S4			
x	x	2605	P-FRX_SP	Fraxinus sp.	Ash Species							
x	x	2634	P-GALTETR	Galeopsis tetrahit	Hemp-nettle	common		GNR	SNA			
x	x	2626	P-GALPALU	Galium palustre	Marsh Bedstraw	common		G5	S5			
x	x	2610	P-GAL_SP	Galium sp.	Bedstraw Species							
x	x	2667	P-GERBICK	Geranium bicknellii	Cranesbill	rare		G5	S4			
x	x	2671	P-GERMACU	Geranium maculatum	Wild Geranium	common		G5	S5			
x	x	2676	P-GERROBE	Geranium robertianum	Herb Robert	common		G5	S5			
x	x	2678	P-GEU_SP	Geum sp.	Avens Species							
x	x	2704	P-GLYSTRI	Glyceria striata	Fowl Manna Grass	common	Glyceria striata var. striata	G5	S5			
x		2779	P-HIEAURA	Hieracium aurantiacum	Orange Hawkweed	common		GNR	SNA			
x		2780	P-HIECACA	Hieracium caespitosum caespitosum	Yellow Hawkweed	common	Hieracium caespitosum	GNR	SNA			
x		2785	P-HIELACH	Hieracium lachenalii	Common Hawkweed	common		GNR	SNA			
x	x	2777	P-HIE_SP	Hieracium sp.	Hawkweed Species							
x	x	2824	P-HYDVIRG	Hydrophyllum virginianum	Virginia Waterleaf	common		G5	S5			
x	x	2838	P-HYPPERF	Hypericum perforatum	Common St. John's-wort	common		GNR	SNA			
x	x	2840	P-HYPPUNC	Hypericum punctatum	Spotted St. John's-wort	common		G5	S5			
x		2849	P-IMPCAPE	Impatiens capensis	Spotted Touch-me-not	common		G5	S5			
x	x	2860	P-IRI_SP	Iris sp.	Iris Species							
x		2870	P-IRIVERS	Iris versicolor	Wild Blue Flag	common		G5	S5			
x	x	2893	P-JUGNIGR	Juglans nigra	Black Walnut	common		G5	S4			
x		2923	P-JUNNODO	Juncus nodosus	Knotted Rush	common		G5	S5			
x	x	2923	P-JUNNODO	Juncus nodosus	Rush	common		G5	S5			
x	x	2895	P-JUN_SP	Juncus sp.	Rush Species							
x	x	2909	P-JUNCOMM	Juniperus communis	Common Juniper	rare		G5	S5			
x	x	2933	P-JUNVIRG	Juniperus virginiana	Red Cedar	common		G5	S5			
x	x	2959	P-LACSERR	Lactuca serriola	Prickly Lettuce	common		GNR	SNA			
x	x	2962	P-LAMAMPL	Lamium amplexicaule	Henbit	common		GNR	SNA			
x		2991	P-LEEORYZ	Leersia oryzoides	Rice Cut Grass	common		G5	S5			
x		2998	P-LEOCACA	Leonurus cardiaca cardiaca	Motherwort	common	Leonurus cardiaca ssp. cardiaca	GNR	SNA			
x	x	3063	P-LINVULG	Linaria vulgaris	Butter-and-eggs	common		GNR	SNA			
x	x	3084	P-LOBCARD	Lobelia cardinalis	Cardinal Flower	common		G5	S5			
x	x	3099	P-LONCANA	Lonicera canadensis	Fly-honeysuckle	common		G5	S5			
x	x	3103	P-LONHIRS	Lonicera hirsuta	Hairy Honeysuckle	uncommon		G4G5	S5			
x		3106	P-LONMAAC	Lonicera maackii	Amur Honeysuckle	common		GNR	SNA			
x		3098	P-LON_SP	Lonicera sp.	Honeysuckle Species							

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x	x	3115	P-LOTORN	Lotus corniculatus	Birdfoot Trefoil	common		GNR	SNA			
x		3134	P-LYCAMER	Lycopus americanus	American Water-horehound	common		G5	S5			
x	x	3164	P-LYP__SP	Lycopus sp.	Water-horehound Species							
x	x	3159	P-LYCUNIF	Lycopus uniflorus	Water-horehound	common		G5	S5			
x	x	3166	P-LYSCILI	Lysimachia ciliata	Fringed Loosestrife	common		G5	S5			
x		3174	P-LYSTHYR	Lysimachia thyriflora	Tufted Loosestrife	common		G5	S5			
x	x	3179	P-LYTSALI	Lythrum salicaria	Purple Loosestrife	common		G5	SNA			
x	x	3187	P-MAICANA	Maianthemum canadense	Wild Lily-of-the-valley	common		G5	S5			
x	x	3200	P-MALPUMI	Malus pumila	Apple	common		G5	SNA			
x	x	3217	P-MEDLUPU	Medicago lupulina	Black Medick	common		GNR	SNA			
x	x	3233	P-MEN__SP	Mentha sp.	Mint Species							
x	x	3253	P-MIMRING	Mimulus ringens	Square-stemmed	common		G5	S5			
x	x	3274	P-MONFIST	Monarda fistulosa	Wild Bergamot	common		G5T5?	S5			
x		4933	P-MOS__SP	moss sp.	Moss sp.							
x		3363	P-OENPARV	Oenothera parviflora	Small-flowered Evening-primrose	common		G4?	S5			
x	x	3370	P-ONOSENS	Onoclea sensibilis	Sensitive Fern	common		G5	S5			
x	x	3397	P-OSTVIRG	Ostrya virginiana	Ironwood	common		G5	S5			
x	x	3400	P-OXAACMO	Oxalis acetosella ssp. montana	Wood-sorrel	common		G5	S5			
x		3401	P-OXACORN	Oxalis corniculata	Creeping Wood-sorrel	common		GNR	SNA			
x	x	3399	P-OXA__SP	Oxalis sp.	Wood-sorrel Species							
x	x	3446	P-PANVIRG	Panicum virgatum	Switch Grass	rare		G5	S4			
x	x	3456	P-PARINSE	Parthenocissus inserta	Virginia Creeper	common	Parthenocissus vitacea	G5	S5			
x	x		P-PARQUIN	Parthenocissus quinquefolia	Five-leaved Virginia-creeper	common		G5	S4?			
x	x	3481	P-PENDIGI	Penstemon digitalis	Foxglove Beard-tongue	common		G5	S4S5			
x		3483	P-PENHIRS	Penstemon hirsutus	Hairy Beard-tongue	common		G4	S4			
x	x	3495	P-PHAARUN	Phalaris arundinacea	Reed Canary Grass	common		G5	S5			
x	x	3522	P-PHYHETE	Physalis heterophylla	Clammy Ground-cherry	common		G5	S4			
x		3533	P-PICABIE	Picea abies	Norway Spruce	common		G5	SNA			
x		3535	P-PICGLAU	Picea glauca	White Spruce	common		G5	S5			
x	x	3549	P-PINNIGR	Pinus nigra	Austrian Pine	common		GNR	SNA			
x	x	3550	P-PINRESI	Pinus resinosa	Red Pine	common		G5	S5			
x	x	3552	P-PINSTRO	Pinus strobus	Eastern White Pine	common		G5	S5			
x		3553	P-PINSYLV	Pinus sylvestris	Scotch Pine	common		GNR	SNA			
x	x	3574	P-PLALANC	Plantago lanceolata	English Plantain	common		G5	SNA			
x	x	3560	P-PLA__SP	Plantago sp.	Plantain Species							
x	x	4930	P-GRA__SP	Poa sp.	Grass Species							
x	x	3592	P-POA__SP	Poa sp.	Blue Grass Species							
x	x	3615	P-PODPELT	Podophyllum peltatum	May-apple	common		G5	S5			
x	x		P-POLPUBE	Polygonatum pubescens	Hairy Solomon's Seal	common		G5	S5			
x	x	3674	P-POM__SP	Polygonatum sp.	Solomon's Seal Species							
x		3680	P-POPDEMO	Populus deltoides	Cottonwood	common	Populus deltoides ssp. monilifera	G5T4T5	S5			
x	x	3684	P-POPTREM	Populus tremuloides	Trembling Aspen	common		G5	S5			
x	x		P-POROLER	Portulaca oleracea	Purslane	common		GNR	SNA			
x	x	3697	P-POTAMPL	Potamogeton amplifolius	Large-leaved Pondweed	uncommon		G5	S5			
x	x	3700	P-POTARGE	Potentilla argentea	Silvery Cinquefoil	common		GNR	SNA			
x	x	3724	P-POTNORV	Potentilla norvegica	Rough Cinquefoil	common		G5T?	SU			
x		3725	P-POTPALU	Potentilla palustris	Marsh Cinquefoil	rare		G5	S5			

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x		3740	P-POTSIMP	Potentilla simplex	Common Cinquefoil	common		G5	S5			
x	x	3618	P-POE_SP	Potentilla sp.	Cinquefoil Species							
x		3791	P-PRUVULG	Prunella vulgaris	Heal-all	common		G5	S5			
x		3786	P-PRUSERO	Prunus serotina	Wild Black Cherry	common		G5	S5			
x	x	3768	P-PRU_SP	Prunus sp.	Cherry Species							
x	x	3789	P-PRUVIVI	Prunus virginiana virginiana	Chokecherry	common	Prunus virginiana	G5	S5			
x	x	3818	P-QUEALBA	Quercus alba	White Oak	common		G5	S5			
x	x	3819	P-QUEBICO	Quercus bicolor	Swamp White Oak	common		G5	S4			
x	x	3822	P-QUEMACR	Quercus macrocarpa	Bur Oak	common		G5	S5			
x	x	3826	P-QUEMUHL	Quercus muehlenbergii	Chinquapin Oak	common		G5	S4			
x		3817	P-QUE_SP	Quercus sp.	Oak Species							
x	x	4702	P-RANACRI	Ranunculus acris	Tall Buttercup	common		G5	SNA			
x	x	3842	P-RANFASC	Ranunculus fascicularis	Early Buttercup	rare		G5	S4			
x		3857	P-RANRECU	Ranunculus recurvatus	Hooked Buttercup	common		G5	S5			
x	x	3878	P-RHACATH	Rhamnus cathartica	Common Buckthorn	common		GNR	SNA			
x	x	3884	P-RHAFRAN	Rhamnus frangula	Glossy Buckthorn	common	Frangula alnus	GNR	SNA			
x	x	3876	P-RHA_SP	Rhamnus sp.	Buckthorn Species							
x	x	3889	P-RHUAROM	Rhus aromatica	Fragrant Sumac	rare		G5	S5			
x		3901	P-RIBAMER	Ribes americanum	Wild Black Currant	common		G5	S5			
x	x	3902	P-RIBCYN	Ribes cynosbati	Prickly Gooseberry	common		G5	S5			
x		3927	P-ROSLAN	Rosa blanda	Smooth Rose	common		G5	S5			
x	x	3947	P-RUBALLE	Rubus allegheniensis	Common Blackberry	common		G5	S5			
x	x	3956	P-RUBIDID	Rubus idaeus idaeus	Red Raspberry	common	Rubus idaeus ssp. idaeus	G5T5	SNA			
x	x	3958	P-RUBOCCI	Rubus occidentalis	Black Raspberry	common		G5	S5			
x		3968	P-RUBPUBE	Rubus pubescens	Dwarf Raspberry	common		G5	S5			
x	x	3946	P-RUB_SP	Rubus sp.	Rubus Species							
x		3990	P-RUMCRIS	Rumex crispus	Curly Dock	common		GNR	SNA			
x	x	4005	P-SAL_SP	Salix sp.	Willow Species							
x	x	4069	P-SANCANA	Sanguinaria canadensis	Bloodroot	common		G5	S5			
x	x	4090	P-SAXVIRG	Saxifraga virginensis	Early Saxifrage	common		G5	S5			
x	x	4094	P-SCIACUT	Scirpus acutus	Hard-stemmed Bulrush	uncommon		G5	S5			
x	x	4096	P-SCIATRO	Scirpus atrovirens	Black Bulrush	common		G5?	S5			
x		4125	P-SCUGALE	Scutellaria galericulata	Common Skullcap	common		G5	S5			
x	x	4124	P-SCU_SP	Scutellaria sp.	Skullcap Species							
x		4138	P-SEDACRE	Sedum acre	Mossy Stonecrop	common		GNR	SNA			
x		4193	P-SILVULG	Silene vulgaris	Bladder Campion	common		GNR	SNA			
x	x	4209	P-SMIHISP	Smilax hispida	Bristly Greenbrier	common		G5	S4			
x	x	4221	P-SOLDULC	Solanum dulcamara	Climbing Nightshade	common		GNR	SNA			
x		4235	P-SOLNIGR	Solanum nigrum	Black Nightshade	common		GNR	SNA			
x	x	4215	P-SOLALAL	Solidago altissima var. altissima	Tall Goldenrod	common	Solidago canadensis var. scabra	GNR	S5			
x	x	4218	P-SOLCAES	Solidago caesia	Blue-stem Goldenrod	common		G5	S5			
x		4219	P-SOLCANA	Solidago canadensis	Canada Goldenrod	common	Solidago canadensis var. canadensis	G5T5	S5			
x	x	4222	P-SOLFLEX	Solidago flexicaulis	Zig-zag Goldenrod	common		G5	S5			
x	x	4234	P-SOLNENE	Solidago nemoralis nemoralis	Gray Goldenrod	common	Solidago nemoralis ssp. nemoralis	G5T5	S5			
x	x		P-SOLPATU	Solidago patula	Rough-leaved Goldenrod	common		G5	S5			
x	x	4245	P-SOLRURU	Solidago rugosa ssp. rugosa	Rough Goldenrod	common		G5T5	S5			
x	x	4214	P-SOL_SP	Solidago sp.	Goldenrod Species							
x	x	4297	P-SPIALBA	Spiraea alba	Narrow-leaved Meadowsweet	common		G5	S5			

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x	x		P-TAROFFI	Taraxacum officinale	Common Dandelion	common		G5	SNA			
x	x	4978	P-TAR_SP	Taraxacum sp.	Dandelion Species							
x	x	4382	P-THADIOI	Thalictrum dioicum	Early Meadow-rue	common		G5	S5			
x	x	4379	P-THA_SP	Thalictrum sp.	Meadow-Rue Species							
x	x	4390	P-THEPAPU	Thelypteris palustris var. pubescens	Marsh Fern	common		G5	S5			
x	x	4400	P-TILAMER	Tilia americana	American Basswood	common		G5	S5			
x	x	3890	P-RHURADI	Toxicodendron radicans	Poison-ivy	common		G5	S5			
x		4411	P-TRADUBI	Tragopogon dubius	Goat's-beard	common		GNR	SNA			
x	x	4448	P-TRIPRAT	Trifolium pratense	Red Clover	common		GNR	SNA			
x	x	4437	P-TRIGRAN	Trillium grandiflorum	White Trillium	common		G5	S5			
x	x	4420	P-TRI_SP	Trillium sp.	Trillium Species							
x		4424	P-TRIAURA	Triosteum aurantiacum	Wild Coffee	common		G5	S5			
x		4461	P-TUSFARF	Tussilago farfara	Coltsfoot	common		GNR	SNA			
x		4462	P-TYPANGU	Typha angustifolia	Narrow-leaved Cattail	common		G5	SNA			
x		4463	P-TYPLATI	Typha latifolia	Common Cattail	common		G5	S5			
x		1125	P-TYP_SP	Typha sp.	Cattail Species							
x		4464	P-TYPXGLA	Typha x glauca	Hybrid Cattail	common		GNA	SNA			
x	x	4466	P-ULMAMER	Ulmus americana	White Elm	common		G5?	S5			
x		4472	P-ULMRUBR	Ulmus rubra	Red Elm	common		G5	S5			
x	x	4465	P-ULM_SP	Ulmus sp.	Elm Species							
x		4475	P-URTDIDI	Urtica dioica dioica	European Stinging Nettle	common	Urtica dioica ssp. dioica	G5T?	SNA			
x		4476	P-URTDIGR	Urtica dioica gracilis	American Stinging Nettle	common	Urtica dioica ssp. gracilis	G5T5	S5			
x		4525	P-VERBLAT	Verbascum blattaria	Moth Mullein	common		GNR	SNA			
x	x	4549	P-VERTHAP	Verbascum thapsus	Common Mullein	common		GNR	SNA			
x		4531	P-VERHAST	Verbena hastata	Blue Vervain	common		G5	S5			
x	x	4535	P-VEROFFI	Veronica officinalis	Common Speedwell	common		G5	SNA			
x		4516	P-VER_SP	Veronica sp.	Speedwell Species							
x	x	4561	P-VIBLANA	Viburnum lantana	Wayfaring Tree	common		GNR	SNA			
x	x	4563	P-VIBLENT	Viburnum lentago	Nannyberry	common		G5	S5			
x	x		P-VIBOPUL	Viburnum opulus	Guelder Rose	common		GNR	SNA			
x	x	4571	P-VICCRAC	Vicia cracca	Bird Vetch	common		GNR	SNA			
x	x	4568	P-VIC_SP	Vicia sp.	Vetch Species							
x	x		P-VICTETR	Vicia tetrasperma	Slender Vetch	common		GNR	SNA			
x	x	4602	P-VIOROST	Viola rostrata	Long-spurred Violet	common		G5	S5			
x	x	4607	P-VIOSORO	Viola sororia	Common Blue Violet	common		G5	S5			See FORIBIS for more synonyms
x	x	4579	P-VIO_SP	Viola sp.	Violet Species							
x		4618	P-VITRIPA	Vitis riparia	Riverbank Grape	common		G5	S5			
x	x	4615	P-VIT_SP	Vitis sp.	Grape Species							
x	x	4645	P-ZANAMER	Zanthoxylum americanum	Prickly-ash	common		G5	S5			
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Appendix 10.5

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