

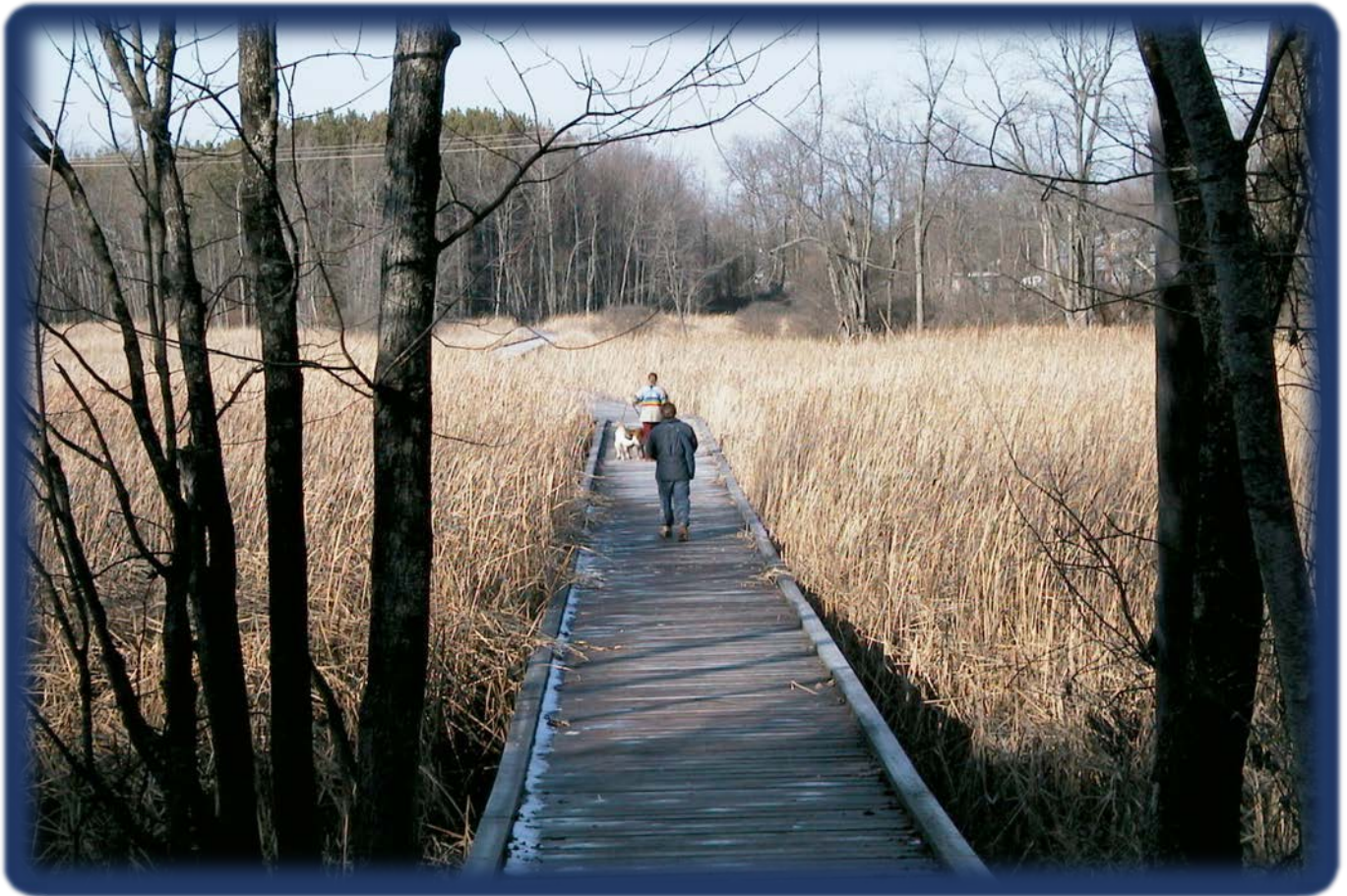
Lafarge 2000 Trail 2019 Management Plan

FINAL - October 2020

Lafarge 2000 Trail

2019 Management Plan

A Joint Project of
The City of Hamilton and
The Hamilton Region Conservation Authority



Prepared by: Hamilton Conservation Authority (HCA)

Photo Credits: HCA Staff



TABLE OF CONTENTS

1.0 APPROVAL STATEMENT	5
2.0 INTRODUCTION	6
2.1 Area Summary	6
2.2 Key Items	6
2.3 Goals and Objectives	6
3.0 BACKGROUND	7
3.1 Study Area	7
3.2 Property History	7
3.3 Planning and Development Controls	8
3.4 Management Plan Zones	8
4.0 NATURAL AREA INVENTORY	9
4.1 Natural Features	9
4.2 Aquatic Inventory	10
5.0 CONSERVATION AREA MANAGEMENT	11
5.1 Trail Infrastructure Review	11
5.2 Connections to Hamilton Conservation Areas	21
6.0 MANAGEMENT PRACTICES	24
6.1 Natural Heritage Conservation	24
6.2 Water Management	24
6.3 Conservation Area Experience	24
6.4 Education and Environmental Awareness	25
6.5 Management Guidelines	25
6.6 Maintenance Guidelines	25
7.0 SUMMARY	27
7.1 Implementation Priorities	27
8.0 APPENDIX CONTENTS	28

List of Figures

Figure 1	Trail Location and HCA Lands.....	8
Figure 2	Trail Connection, Valens Lake Conservation Area and Fletcher Creek Ecological Preserve.....	21
Figure 3	Trail Connection Valens Lake Conservation Area.....	22
Figure 4	Trail Connection Christie Lake Cosnervation Area.....	22
Figure 5	Trail Connection Dundas Valley Conservation Area.....	23

We are pleased to approve the Lafarge 2000 Trail - 2019 Management Plan as the official policy document for the Hamilton Region Conservation Authority (HCA) working in cooperation with the City of Hamilton (City).

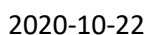
Moving forward over the next ten years this plan will provide guidance for HCA management of the trail for the City in support of these goals.

November 5, 2020

Date

November 5, 2020

Date



2.0 INTRODUCTION

2.1 Area Summary

Formerly called the Middletown Road Trail, the Lafarge 2000 Trail (Lafarge Trail) is under a grandfathered management agreement established in 1999 between the former Town of Flamborough, now City of Hamilton, and HCA. Currently, the City of Hamilton owns the property and HCA maintains the off-road trail. This 22 km trail consists of both on-road and off-road sections and links to the Beverly Swamp, Christie Lake Conservation Area, and the Dundas Valley Conservation Area. The trail follows Middletown Road from Regional Road 99 north to Highway 6 east of Fletcher Creek Ecological Preserve (see Figure 1).

This trail provides a valuable north / south link between the West Hamilton–to–Brantford Rail Trail and the Township of Puslinch. It is worth noting the trail links to the Trans-Canada-Trail system and is an important part of the provincial, regional, and municipal recreational trail network.

Located in the rural area of the Town of Flamborough, trail users have the experience of moving through a varied landscape of glacial moraines, drumlins, wetlands, and natural features off the “beaten path”. Trail use is directed towards walkers and bicyclists.

In 2000 the HCA Board of Directors approved the Middletown Road Trail Master Development and Management Plan. This document updates that plan.

2.2 Key Items

HCA staff focused on three key items of the off-road trail in preparing this management plan:

1. Condition of the trail infrastructure.
2. Terrestrial and aquatic ecological review of natural areas adjacent to the trail.
3. Potential linkages to Hamilton Conservation Areas for trail users.

2.3 Goals and Objectives

This plan provides current information on the off-road trail portion managed by HCA, with recommendations for future trail management and operation.

3.0 BACKGROUND

3.1 Study Area

The Lafarge Trail is located along the municipal opened and unopened road allowance between the former Township of Beverly and West Flamborough, Township of Flamborough. The trail extends from the Hamilton to Brantford Rail Trail in the south to Highway 6 in the north as shown on Figure 1.

3.2 Property History

In 1999 The Town of Flamborough completed a Master Trails Plan identifying the Middletown Trail as a priority item to complete in the short term. At that time, The Town of Flamborough and HCA signed a fifty-year partnership agreement for the management of the 22Km Middletown Road Trail, and HCA staff became involved in preparing the Middletown Trail Master Development and Management Plan. This plan involved public consultation with adjacent landowners. A public open house held in March 2000 saw 61 people in attendance expressing concerns regarding security, trespass, and safety issues at the trail and road intersections. These concerns were similar to those expressed when the Hamilton to Brantford Rail Trail and Chippawa Trail were proposed. As with these previous trails, HCA staff worked to address these concerns through the drafting of the management plan and subsequent implementation of the trail works. The management plan was approved by the HCA Board in 2000, and has been in effect since that time.

Concurrent with the implementation of the management agreement and management plan, funding for the trail was sought and secured from the Town of Flamborough, the Hamilton Conservation Foundation, from private donations, and from a Canadian Millennium grant obtained in partnership with the Optimist Club of Strabane.

The Hamilton Conservation Foundation secured donations from Lafarge Inc. and their sponsorship allowed for their naming opportunity of the trail, as well as promotional consideration and public recognition. Through this sponsorship opportunity, the Middletown Road Trail then became known as the Lafarge Trail.

Under the partnership agreement, HCA is permitted to use the unopened road allowance portions of the Middletown Road for trail purposes. The portion of the trail located on public roads is under jurisdiction of the municipality.



3.3 Planning and Development Controls

The trail is located in Ward 12 - Ancaster and Ward 13 - Town of Flamborough and subject to planning and development controls of the City of Hamilton.

3.4 Management Plan Zones

Figure 1. shows the trail in relation to lands owned and managed by HCA. The off-road trails are the focus of this management plan. See appended management plan maps 1 and 2 for more information.

Figure 1: Trail Location and HCA Lands



4.0 NATURAL AREA INVENTORY

4.1 Natural Features

For the length of the trail, the topography ranges from generally flat in the south to rolling hills associated with the drumlin fields in the north. Land uses in this area of Flamborough include rural residential homes, agriculture and natural areas. The off-road trail gives the public the opportunity to enjoy locally unique wetland swamp and upland woods.

The Lafarge trail crosses Spencer Creek and its tributaries and Bronte Creek. The trail also passes through nine Environmentally Significant Areas (ESA), five along the existing roadways and the following four on the off-road trail along unopened road allowances: the Westover Drumlin Field; Westover Lowland Forest; Beverly Swamp; and Fletcher Creek Swamp Forest.

The Westover Drumlin Field encompasses a group of five large drumlins in the Westover – Strabane fields of the Flamborough Plain physiographic region. This general area is designated under the OMNR Areas of Natural and Scientific Interest (ANSI) program as an Earth Science Area of Provincial Significance. It contains unique features representative of glacial raised beaches in the Erie basin, and has been used as an earth science interpretive site by universities and various geological organizations.



The Westover Lowland Forest (Westover Wetland) located north of the hamlet of Westover is a narrow east-west strip of natural vegetation extending over 6Km in the 6th Concession of Flamborough. This natural area is designated ESA in the City of Hamilton Official Plan based on the important ecological and hydrological functions it serves, as well as providing habitat for significant species.

The Beverly Swamp is designated under the OMNR ANSI program as an Earth Science Area of Provincial Significance and the wetlands as Provincially Significant. This extensive swamp forms a core natural area across much of Flamborough Township and crosses the headwaters zone of three stream systems: Fairchild Creek, Spencer Creek, and Bronte Creek. This natural area serves a vital ecological and hydrological function, contains significant biotic communities, and provides habitat for many significant species.

The Fletcher Creek Swamp Forest (including Crieff Bog) extends across the northern boundary of Hamilton-Wentworth Region into Wellington County. This significant natural area is designated under the OMNR ANSI program as a Life Science Area of Regional Significance, and the Fletcher Creek Swamp is classified as Provincially Significant. The area serves important ecological and hydrological functions, contains significant biotic communities and provides habitat for significant species. Accessible portions are frequented by naturalists and the Wellington County portion has been particularly well studied.

During this study, HCA staff discovered on HCA owned property south of Concession 10, on both sides of the trail, breeding Canada Warbler. This bird is a federal and provincial species at risk. Further field study of this species is recommended to help inform future trail management decisions.

HCA staff also discovered during this study invasive species along the trail corridor, including Common Buckthorn, Glossy Buckthorn, Garlic Mustard, and Honeysuckles. It is recommended that these invasive species be removed and the spread of invasive species be managed, following HCA's Invasive Species Strategy.

4.2 Aquatic Inventory

The Aquatic Inventory for the Lafarge Trail was captured as part of the HCA Aquatic Resource Monitoring Program. This included Electrofishing with a backpack electrofisher following HCA ARMP sampling protocol at one trail crossing site that is visited every three years south of Concession 6W. There are also a number of additional sites for which we have information for this area that extends beyond the trail crossings.

The HCA ARMP follows the Ontario Stream Assessment Protocol for electrofishing. A Halltech Model# HT-2000B electrofishing unit was used for single pass presence/absence surveys. The crew was made of two or three members, one using the electrofishing unit and one or two netters. Fish were placed in buckets with low densities of fish to ensure oxygen levels stayed high and avoid mortality and kept in shady areas. After collection, fish were quickly counted, measured (lengths and weight) and identified before being released back into the stream. During processing one voucher photo was taken of each species collected.

Habitat features such as riparian cover, substrate, presence of invasive species and descriptions of in stream habitat (physical habitat) for fish were recorded. Station length, wetted width and hydraulic head were also recorded.

An Index of Biotic Integrity (IBI) was calculated for each site. This rates sites based on the fish community present from Poor to Very Good.

5.0 CONSERVATION AREA MANAGEMENT

5.1 Trail Infrastructure Review

.1 Gore Road to Concession 10W

The north end of the Lafarge trail is at the intersection of Gore Road and Maddaugh Road. Gore Road is busy with a posted speed limit of 60Km/h. The nearest HCA parking areas are at Fletcher Creek Ecological Preserve and Valens Lake Conservation Area. See appended maps for more information on proposed trail routes to HCA conservation areas.

The entire trail from Gore Road to Concession 10W is in generally good condition. Trail users were observed walking in from Rocky Ridge Estates, a private trailer park abutting the east side of the trail. Fencing recently installed by HCA has helped restrict residential encroachment onto the trail. Gated trail access points such as seen at right, at all road crossings have been recently enhanced to block motorized vehicles from the trail.



Near the gate the trail crosses a portion of provincially significant wetland (PSW) with metal culverts underneath the trail. These culverts should be further evaluated for fish passage and impacts to the wetlands prior to future replacement.

Continuing south, the trail passes through the Fletcher Swamp Forest by means of a 244m long wooden boardwalk. This boardwalk was developed with the generous support of the Optimist Club of Strabane and the Ontario Trillium Foundation.



While conducting this inventory in the spring of 2019, most of the boardwalk was observed under water. When the spring high water levels had subsided, the decking and side rails showed well-aged wood with moss and some rot. Annual inspection of the boardwalk is done by HCA for public safety. A more detailed review during low water levels is proposed to evaluate the overall structural condition and determine future maintenance work and /or replacement.

Based on HCA's experience with similar bridges and boardwalk replacement projects, work on this trail between Gore Road and Concession 10W will be a significant capital expense. Closure of this portion of the trail may be a more prudent option, considering the low trail use as supported by the trail data appended. A more detailed review of the capital costs, public outreach such as conducting trail closure visitor surveys, and discussions with donors of these features is recommended prior to future capital expenditures in this location.





There are two donor benches on the boardwalk. Both are nearing the end of their lifespan.

Trail counts collected near this location may help determine the need for replacement of the benches in future. See *Appendix 2* for trail counter information.

At the midpoint in this trail section, a smaller bridge spans provincially significant wetland. The boardwalk is stable and appears in good condition, however it should be evaluated further when the longer boardwalk is being inspected. The steep hill to the south has some trail erosion. A more detailed review of the trail at this location is recommended, to determine erosion control solutions.



A donor bench is located at the top of the hill south of the boardwalk. Note the weathered condition.



The trail gate at the north side of Concession 10 W has a sign recognizing the partnership and support of the Strabane Optimist Club. Sight lines are good at this road crossing. Wetlands to the west of Lennon Road prevent Concession 10 W connecting to Valens Road, making for less through traffic on this road. As such, Con 10 W and Lennon Road are the recommended trail routes between the Lafarge Trail, Fletcher Creek Ecological Preserve, and Valens Lake Conservation Area. See section 5.2 for more information.



.2 Concession 10W to Regional 97 Road

This section of trail at the south side of Concession 10W is showing regular All Terrain Vehicle (ATV) use bypassing the trail gates. The trail however is in overall good condition. Horse droppings found on the trail indicate there is some equestrian use. Vegetation management along the trail is recommended to provide better clearance for riders.





Near the trail gate, a donor bench is situated in a scenic viewing area. More brush clearing is recommended to improve the view.

The south end of this off-road trail portion ends at this metal gate. Located north of Regional 97 Road, the gate, a “no ATV” sign and a road caution sign mark the dead-end of Middletown Road. A residential driveway and a farm lane are at this location, limiting areas for on street parking at the gate.



.3 Regional 97 Road to Concession 8W

This location is clearly marked with boulders, gates and trail signage, including a recognition sign of a partnership with Carolinian Canada and information on the Beverly Swamp.



This trail entrance is well groomed.



Further along is a donor bench in a clearing in the landscape. The trail then proceeds to pass through a large portion of the Beverly Swamp. As such, there are a number of small creeks and waterways to be crossed. This bridge is one of three, all in excellent condition, and recently installed by HCA.



This educational sign on the Beverly Swamp is one of two cultural heritage interpretive features on the off-road trail. See the appended maps for the locations. Replacement with a non-wood pedestal mount interpretive sign is recommended.



This trail gate is located at the end of the swampy section north of Concession 8W. From this location heading south, the trail follows a gravel laneway passing through farm fields. There are private access points to the farm fields from this laneway.



The laneway joins Middletown Road at a very high point in the landscape which affords beautiful scenic views. A rest area with interpretive signage - the “Wildlife Café” - provides nature education. The sign was produced in partnership with the Greenbelt and “Caring for the Land”. Some of the reference information on the sign is outdated (for example, the caring for the land website no longer exists). In future when a sign replacement is considered, the content will need to be updated.

One of the panoramic views along this portion of the trail



The trail sign below marks the south end of this portion of off-road trail, approximately 800 metres from the 8th Concession. The gravel surface here could be improved for cyclists. Approaching the concession road, the lane joins a small paved section of Middletown Road accessed by four residences. The Lafarge Trail then becomes on-road, following Middletown Road south to Safari Road.



.4 Safari Road to Concession 6W

At the south side of Safari Road, the off-road trail continues past this gate. This area is near residences and evidence of yard waste dumping was observed near the trail. As well, access by ATV's / snowmobiles was evident further in on the trail.



Beyond this gate, the trail crosses a large drumlin which affords an excellent scenic view of the countryside.

The trail is very steep in this area and heavily eroded, requiring a high degree of maintenance to keep it passable for hikers and cyclists. As well, the challenging terrain demands a certain level of fitness for casual recreational use. Further review is recommended to evaluate potential trail upgrades.





Heading further south to Safari Road, the trail crosses provincially significant wetland. Culverts have been replaced at three locations along the trail. These culverts are perched and act as partial barriers to fish passage. It is recommended that when these culverts need to be replaced, that they be replaced by bridges similar to those further north on the trail.

Further along by Concession 6W is a cultural heritage interpretation feature at a scenic lookout on the trail.

This drumlin affords a panoramic view of the countryside and was noted in the original trail design concepts for creation of a lookout feature. There is an interpretive sign oriented towards the north-west, providing information about the drumlin features as well as the purpose and route of the Lafarge Trail. Should the sign need to be replaced in future, the placement of this feature should be reconsidered with public access and appreciation of this feature in mind.



The southern limit of the off-road trail meets the 6th Concession at Middletown Road. The location is gated and signed, with pedestrian and cyclist crossing signs in place on the roadway. Road sight lines are good; however, the narrow road shoulders and ditches require trail users to slow down and exercise caution moving between the roadway and trail.

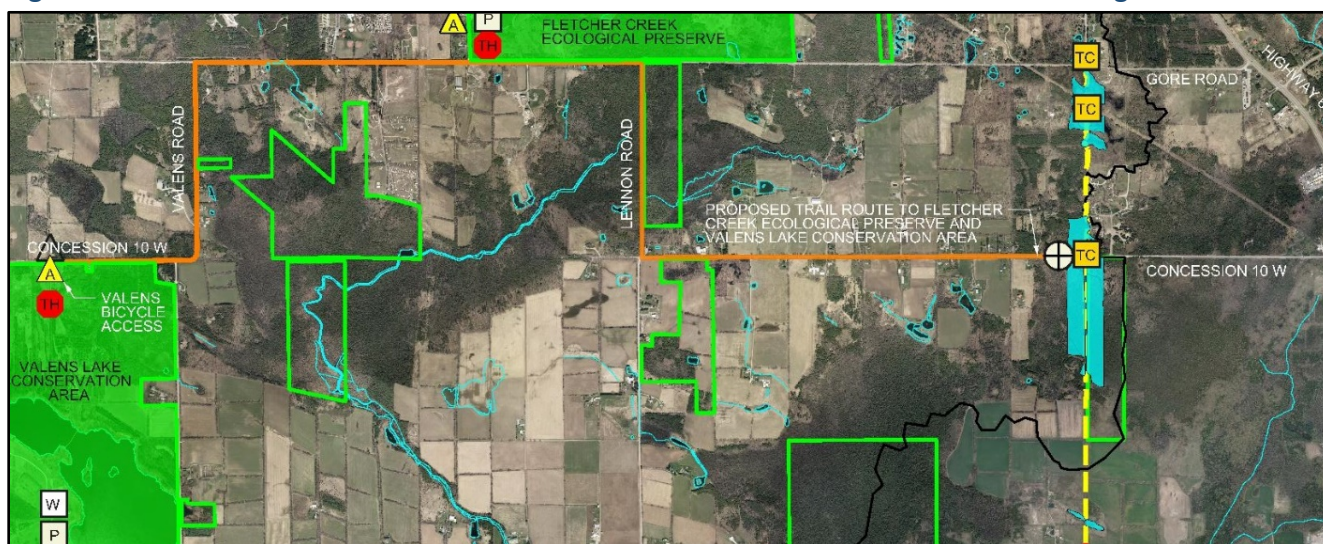


5.2 Connections to Hamilton Conservation Areas

The Lafarge Trail connects to Christie Lake and Dundas Valley, and has potential to link to Fletcher Creek Ecological Preserve and Valens Lake Conservation Area.

The trail linkages are as follows:

Figure 2: Trail connection to Valens Lake Conservation Area and Fletcher Creek Ecological Preserve



Valens Lake Conservation Area is recommended as the preferred staging area for the north end of the Lafarge Trail. Parking, washrooms, camping and day-use facilities are available for trail users. Fletcher Creek Ecological Preserve has limited parking and no washrooms currently in place. See the Fletcher Creek Management Plan for more information. Figure 2. shows the recommended connecting route using Concession 10W, Lennon Road, Gore Road, and Valens Road. Improved road shoulders, trail wayfinding signage, and reduced speed limits on these roads would help improve the route for cyclists.

Concession 10W gated entrance into Valens Lake Conservation Area

Figure 3: Trail connection to Valens Lake Conservation Area



Source: Google street view

Figure 4: Trail Connection to Christie Lake Conservation Area

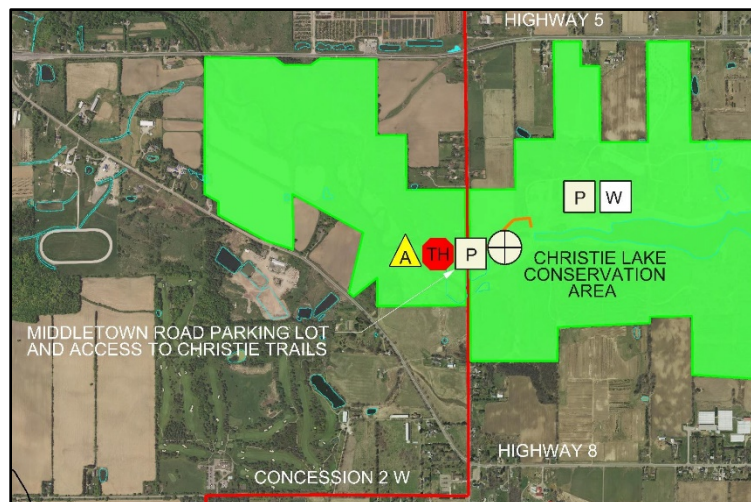


Figure 4. shows the connection to Christie Lake Conservation Area from Middletown Road. Trails lead into the conservation area from the road. A small gravel parking lot is on Middletown Road north of the reservoir. Wayfinding signage in this lot could be improved. Christie Lake is a good staging area for trail users as it provides more parking than on Middletown Road, as well as washrooms and picnic areas.

Figure 5: Indirect Trail Connection: Dundas Valley Conservation Area from the Hamilton to Brantford Rail Trail

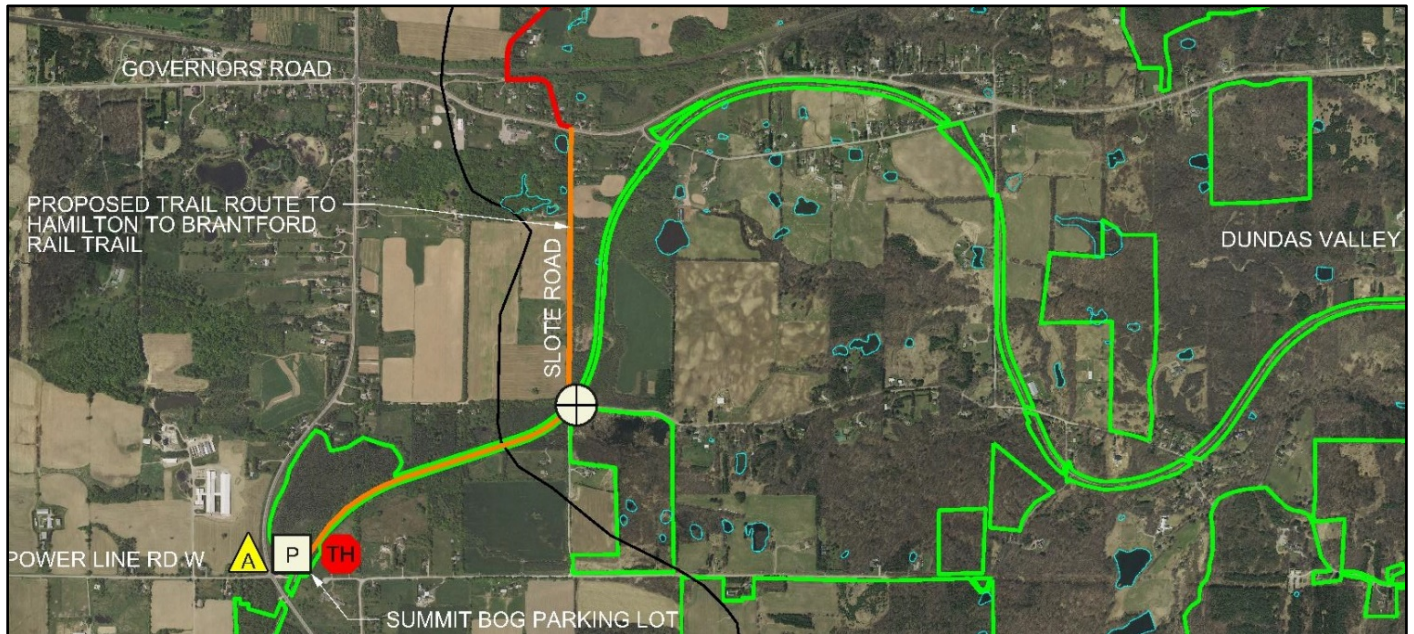


Figure 5. shows the south end of the Lafarge Trail at the Hamilton to Brantford Rail Trail. Preferred parking recommended by HCA on this trail is the Summit Bog parking lot on Highway 52 at Power Line Road West. From this parking area connections north to Middletown Road are possible via Slore Road, Inksetter Road, and Concession 2 West. Access into the Dundas Valley Conservation Area Trail Centre washrooms and day use facilities is possible from the Rail Trail. More parking is also available at the Dundas Valley Conservation Area for trail users.



6.0 MANAGEMENT PRACTICES

6.1 Natural Heritage Conservation

The Lafarge Trail is an important recreational trail within the system of open space and natural areas in the Town of Flamborough. The off-road trail on unopened road allowances crosses four Environmentally Significant Areas (ESA). No new trail development other than routine maintenance of the trail surface, bridges, culverts and boardwalks is proposed. No trail impacts to the adjacent ESA's are anticipated for lifespan of this management plan. However, it should be noted that invasive species are present along the trail and are a concern for spreading to adjacent ESA's. See Section 4.0 for more information.

6.2 Water Management

Water crossings on the trail are not considered to be navigable under the *Federal Navigation Protection Act* (formerly the *Navigable Waters Protection Act*), thus crossings do not have to provide for navigation.

The trail within Concession 8W crosses Bronte Creek, which flows into Lake Ontario. This watercourse is located in the jurisdictional boundaries of Conservation Halton. The remainder of the watercourses that intersect with the trail flow into Cootes Paradise and are in the jurisdictional boundaries of HCA.

No new trail development is proposed that could adversely affect water resources. Should replacement of culverts, bridges and boardwalk features along the off-road trail be required, HCA will adhere to federal, provincial and local policies and regulations. See section 4.0 for more information.



6.3 Conservation Area Experience

This management plan supports the original vision for the Middletown Road Trail in linking the Dundas Valley, Christie Lake and Valens Lake Conservation Area via the Hamilton-to-Brantford Rail Trail and the Lafarge 2000 Trail. As well, this plan supports the broader vision of recreational trail connections from HCA lands to the Niagara Escarpment, Cootes Paradise, Hamilton Harbour, Lake Ontario, and neighbouring municipalities waterfront trails and parks. The former Town of Flamborough and the HCA worked together to create this trail and provide recreational opportunities for the public. Key values of this vision include conserving and managing green corridors/ wildlife habitat; offering heritage, fitness, recreational and educational benefits for the community and visitors; and supporting community health and well-being.

6.4 Education and Environmental Awareness

The existing signage on the off-road portions of the trail provides some interpretive and educational information on the natural features and history of the area. Additional signage and rest areas are not anticipated to be required for the trail, however information signs about natural features could be added in future for the trail parking and staging areas shown in Section 5.2. As well, when trail signage is required to be replaced it could be updated with more current information. New digital technological opportunities are also now available to promote and describe the trail and its features. Currently HCA offers a brochure online with this information, including trail etiquette guidelines, rules and regulations.

6.5 Management Guidelines

.1 Permitted Uses

Walking, hiking, and bicycling are permitted trail uses. Equestrian use is permissible only in areas where trail infrastructure can support this use. Equestrian use may be restricted on the off-road sections by HCA pending weather and site-specific trail conditions.

.2 Restricted Uses

The use of motorized vehicles, with the exception of maintenance and emergency vehicles, is not permitted on the trail. No open fires or camping are permitted. Hunting and trapping are not permitted on or from the trail corridor. Unauthorized property access and encroachment are not permitted and will be addressed by the City of Hamilton and HCA on a case by case basis. When off site parking at the trail is determined to be causing traffic and safety issues, HCA will enlist the assistance of municipal agencies for traffic control and enforcement. Traffic control will be evaluated on a case by case basis by all agencies involved. Traffic control measures such as signage and barriers may be implemented at the discretion of the municipality.

.3 Agreements

The management of the off-road trail will be carried out as per the current partnership agreement between the Town of Flamborough and the HCA. Some portions of the trail are accessed by private landowners, the City of Hamilton may require access agreements for this continued use on a case by case basis.

6.6 Maintenance Guidelines

.1 Vegetation Clearing

The existing trail, as per the original design, is intended to be 1.5m wide with a clearing width of 2.4m. Vegetation is to be removed within this clearing width as necessary to ensure safe sight lines, reduce hazards, and prevent encroachment of vegetation onto the trail. Any vegetation clearing beyond this should only be done on a site-specific basis subject to review by the partners.

.2 Fencing

New fencing is not identified as necessary for the off-road trail. Fencing is only to be considered on a site-specific basis by the partners in accordance with requirements of the provincial *Line Fences Act*.

.3 Lighting

The trail will not be lit and is intended to only be open sunrise to sunset.

.4 Garbage Collection

Garbage cans will not be provided. Trail users are expected to practice “pack in-pack out” trail etiquette.

.5 Washrooms

No washrooms are provided along the trail. Information signs may be used to direct trail users to conservation area parking areas and washrooms.



.6 Winter Maintenance

There will be no snow removal along the trail.

.7 Signage

Five types of signs are permitted along the trail: information, designation/direction, regulatory, warning, and interpretive. Information signs are intended to provide general information about the use, identify the trail and may include a map. Designation/direction and regulatory signs are to be placed along the trail at each road crossing. Warning signs will be placed where there are anticipated safety concerns, such as areas with agricultural activities. Interpretive signs may be provided with the ESA's. All signs are to follow the partners sign standards.

.8 Wetlands

Trail maintenance at stream crossings, wetlands, and environmentally sensitive areas requires ecological review by HCA and the City before proceeding. This requirement includes proposed culvert work and replacements, as well as bridge and boardwalk maintenance or replacement.

.9 Invasive Species

Invasive species currently present alongside the trail observed by HCA staff include Common Buckthorn, Glossy Buckthorn, Phragmites, Garlic Mustard and Honeysuckles. Removal of these species is recommended as high priority, especially where adjacent ESA's could be threatened. A separate and more detailed invasive species management plan is recommended in order to plan and prioritize this work.

7.0 SUMMARY

7.1 Implementation Priorities

Over the last 20 years the Lafarge 2000 Trail has provided a valued north/south trail link between the West Hamilton to Brantford Rail Trail and the Township of Puslinch.

Continued safe enjoyment of the trail will require some capital work to be completed to replace aging trail infrastructure. The following items are recommended to be implemented in order of priority to achieve this goal:

.1 Bridges and Boardwalks:

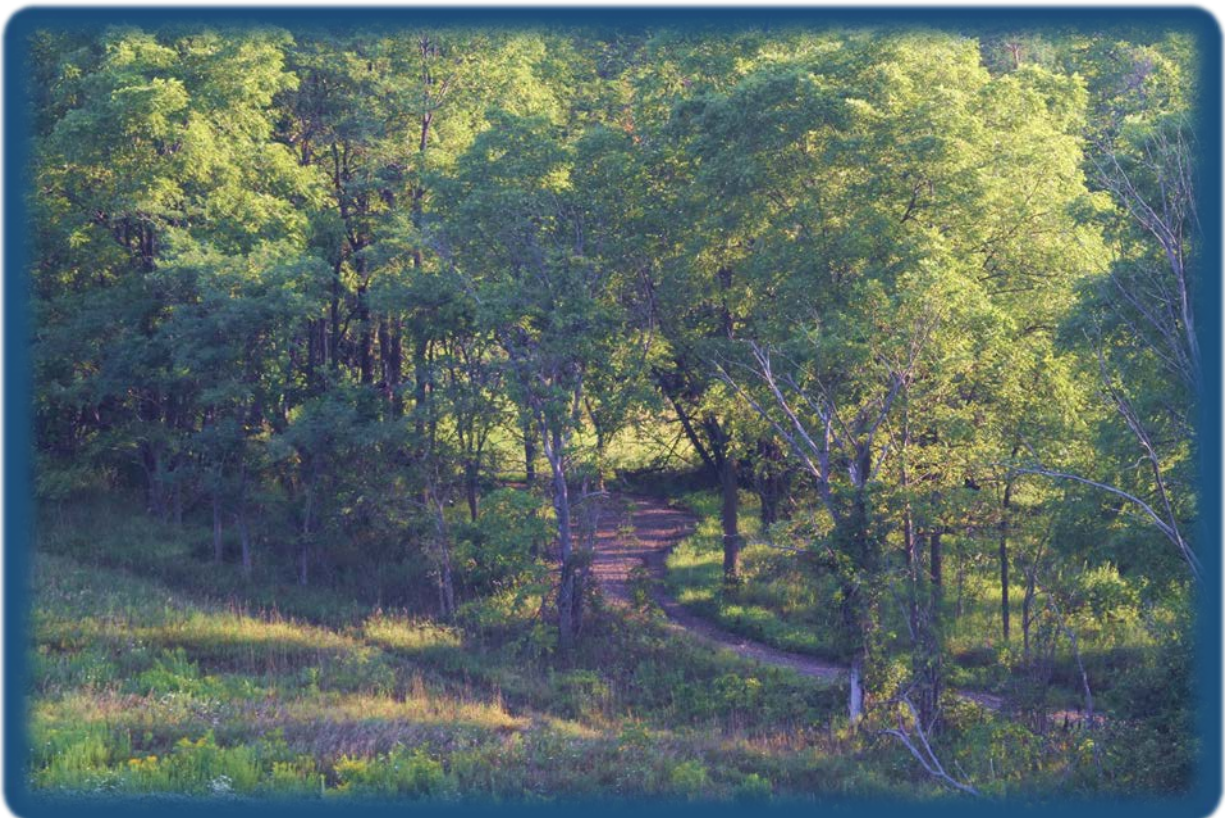
Conduct structural review and report on capital replacement and maintenance requirements for all bridges and boardwalks.

.2 Trail Maintenance:

Conduct maintenance inventory to assess annual requirements for trail clearing, surfacing and condition reviews. Provide design and maintenance recommendations to the partners.

.3 Signage Replacements:

Signs to be replaced in priority sequence to ensure public safety.



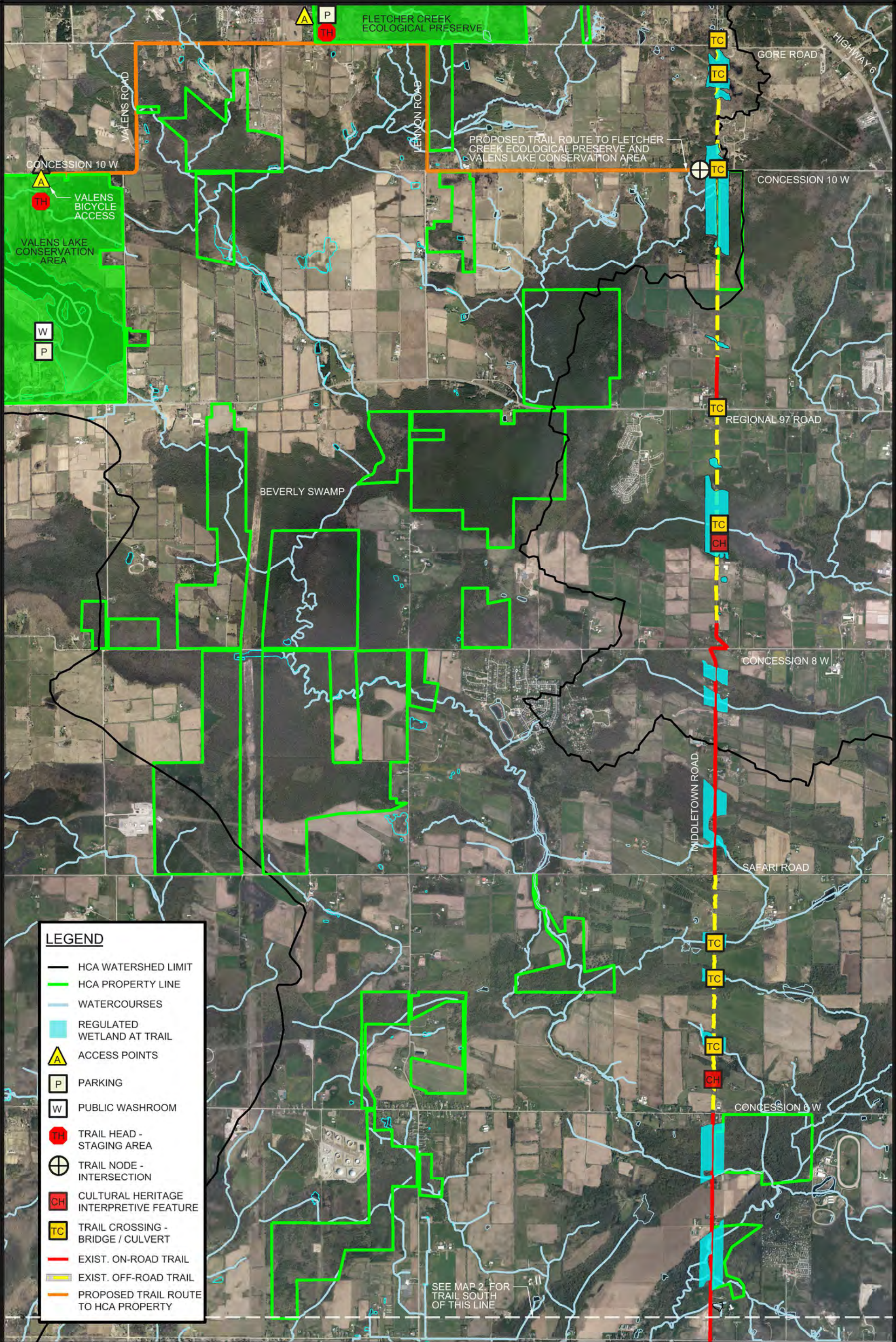
8.0 APPENDIX CONTENTS

APPENDIX 1	Mapping.....	29
APPENDIX 2	Capital Development Priorities.....	32
APPENDIX 3	Trail and Vehicle Counter Data.....	34

APPENDIX 1

MAP 1 Management Plan Map

MAP 2 Management Plan Map



LEGEND

- HCA WATERSHED LIMIT
- HCA PROPERTY LINE
- WATERCOURSES
- REGULATED WETLAND AT TRAIL
- ▲ ACCESS POINTS
- P PARKING
- W PUBLIC WASHROOM
- TH TRAIL HEAD - STAGING AREA
- ⊕ TRAIL NODE - INTERSECTION
- CH CULTURAL HERITAGE INTERPRETIVE FEATURE
- TC TRAIL CROSSING - BRIDGE / CULVERT
- EXIST. ON-ROAD TRAIL
- EXIST. OFF-ROAD TRAIL
- PROPOSED TRAIL ROUTE TO HCA PROPERTY



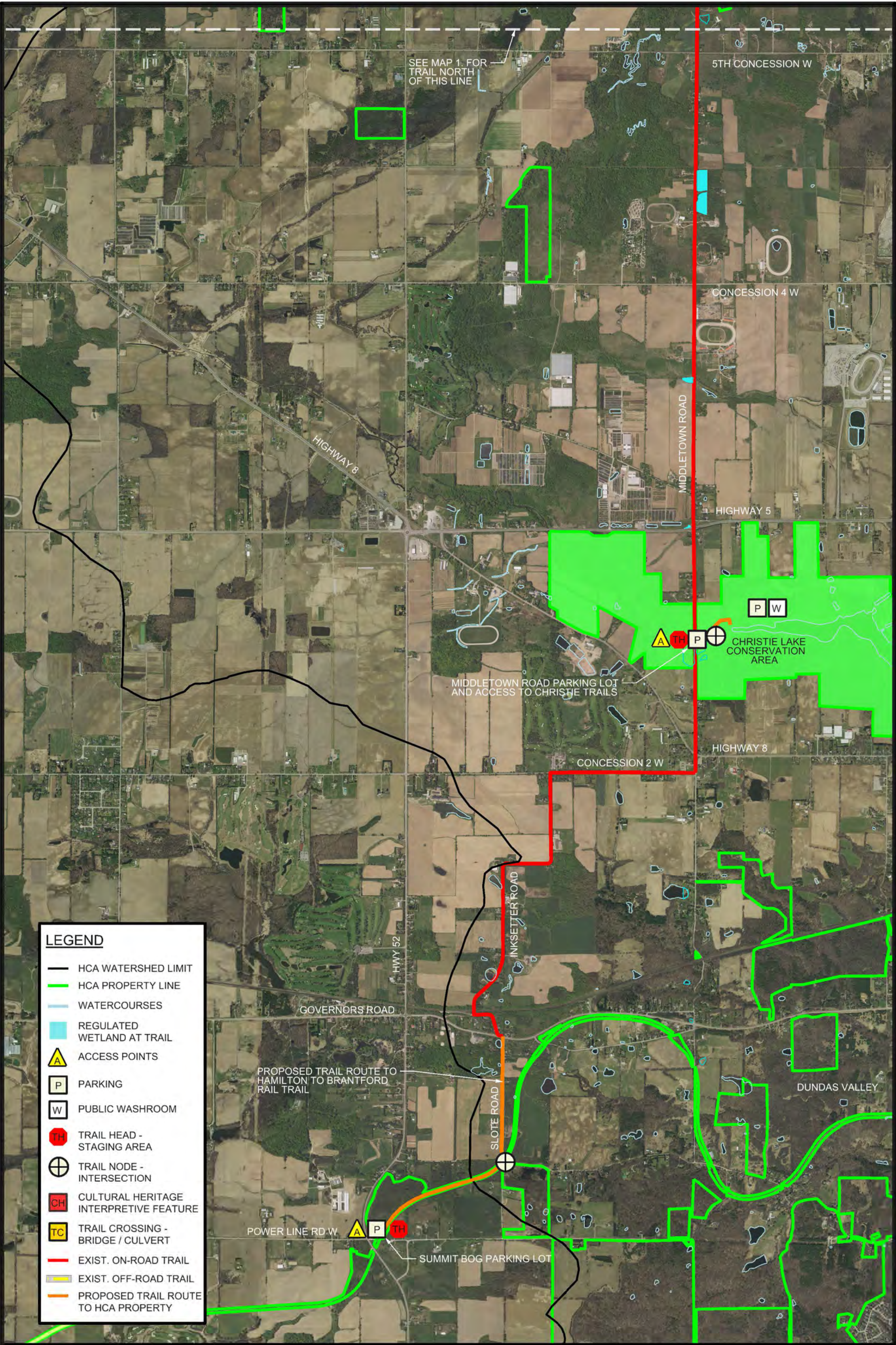
**Hamilton
Conservation
Authority**

A Healthy Watershed for Everyone

LAFARGE 2000 TRAIL MANAGEMENT PLAN MAP

DATE: 2020/11/05





APPENDIX 2

Capital Development Priorities

LAFARGE 2000 TRAIL CAPITAL DEVELOPMENT PRIORITIES: 2020 - 2030

A. Trail Infrastructure Improvements ***Budget (314K)**

**A1	Boardwalk replacement (244 lin.m.)	\$ 150,000
**A2	Bridge replacement (1 location)	\$ 25,000
**A3	Culverts replaced with bridges (4 locations)	\$ 40,000
A4	Trail erosion repair and restoration (500 lin.m.)	\$ 50,000
A5	Interpretive signage replacement (2 units)	\$ 6,000
A6	Bench replacements (6 units)	\$ 18,000
A7	Replace wood gate signs (8 locations)	\$ 20,000
***A8	Invasive Species Management (12km trail edge)	\$ 5,000

B. Conservation Area Connection Improvements ***Budget (95K)**

B1	Fletcher/Valens route signs (8 locations)	\$ 20,000
B2	Christie Lake route signs (2 locations)	\$ 5,000
B3	Christie Lake to Summit Bog route signs (12 locations)	\$ 30,000
B4	Trail Head Staging areas (4 locations)	\$ 40,000

* Budget costs are in 2020 dollars, projects and budgets to be reviewed annually.

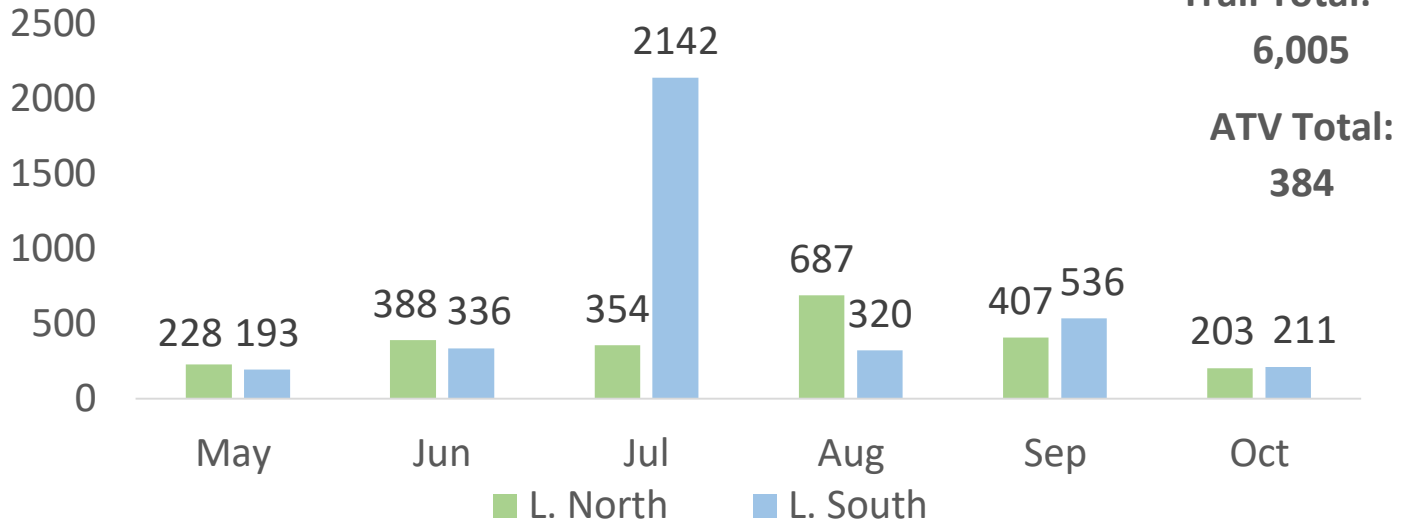
** Capital item dependent on project approval and/or fundraising.

*** Costs subject to ecological findings and recommendations. The cost shown is for invasive spraying only, multiple volunteer events will also be required for invasive removals.

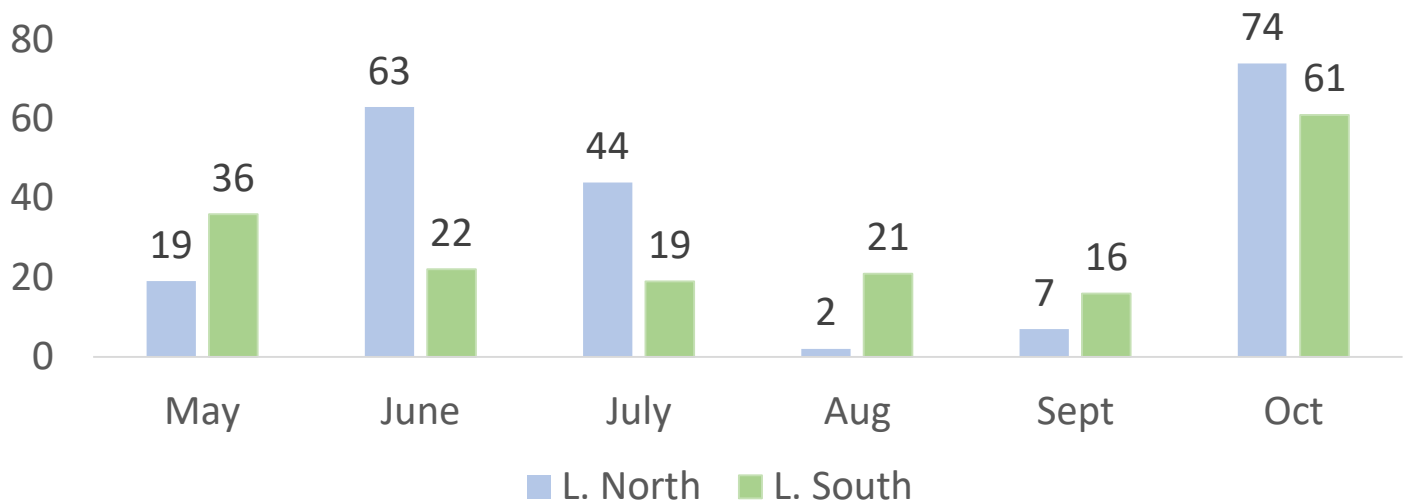
APPENDIX 3

Trail and Vehicle Counter Data

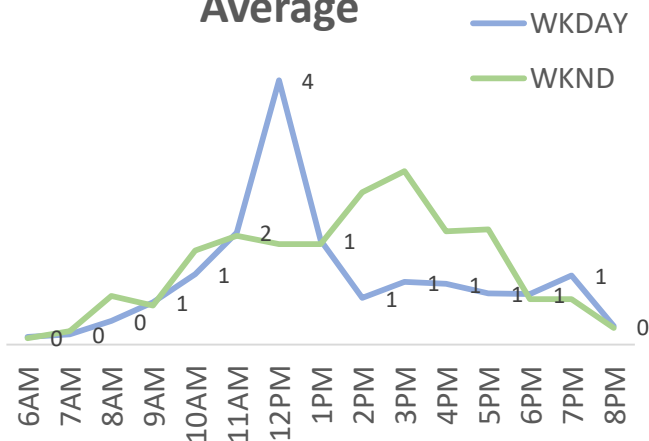
Lafarge Trail Counts



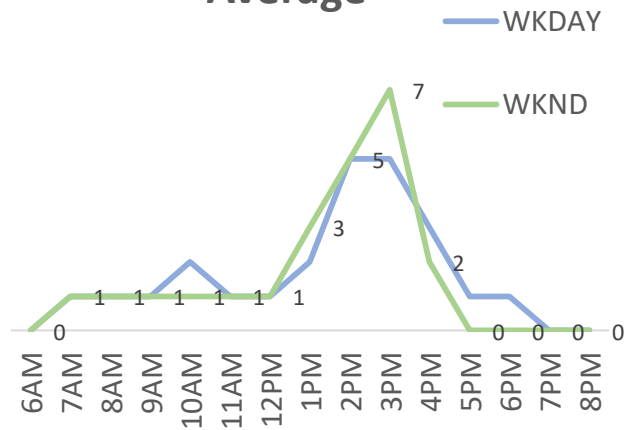
Lafarge Trail ATV Counts



Lafarge North Hourly Average



Lafarge South Hourly Average





Hamilton Conservation Authority

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