



Board of Directors Meeting Agenda

Thursday, November 7, 2024

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Board of Directors Meeting

Thursday, November 7, 2024 at 6:00 p.m.

Hamilton Conservation Authority is now conducting meetings in a hybrid format via an in-person and WebEx platform.

**All hybrid meetings can be viewed live on HCA's You Tube Channel:
<https://www.youtube.com/user/HamiltonConservation>**

- 1. Call to Order** – Brad Clark
- 2. Declarations of Conflict of Interest**
- 3. Approval of Agenda**
- 4. Delegations**
- 5. Consent Items for Applications, Minutes and Correspondence**
 - 5.1. Permit Applications Summary Report Page 1
 - 5.2. Approval of Board of Directors Minutes – October 3, 2024 Page 7
 - 5.3. Approved June 13, 2024 Conservation Advisory Board Minutes – for receipt only Page 15
- 6. Foundation Briefing** Foundation Chair – Kathy Lacasse
- 7. Member Briefing**

Watershed Stewardship Awards & 30th Anniversary Presentation – Cherish Gamble, Jeff Stock, and Mike Stone
- 8. Business Arising from the Minutes**

9. Reports from Budget & Administration Committee and Conservation Advisory Board

9.1. Conservation Advisory Board – October 10, 2024 – Wayne Terryberry
(Recommendations)

9.1.1. CA 2422 HCA Conservation Areas Strategy pursuant to Ontario Regulation 686/21 Page 21

9.1.2. CA 2423 HCA Watershed-based Resource Management Strategy pursuant to Ontario Regulation 686/21 Page 55

9.1.3. CA 2424 HCA Land Inventory Strategy pursuant to Ontario Regulation 686/21 Page 91

10. Other Staff Reports/Memorandums

Memorandums to be received

10.1. Watershed Conditions Report – Jonathan Bastien Page 95

10.2. Conservation Areas Experiences – Liam Fletcher Page 99

11. New Business

12. In-Camera Items

12.1 Confidential Verbal Update BD Nov-02-2024
(Legal Matter)

13. Next Meeting – Thursday, December 5, 2024 at 6:00 p.m.

14. Adjournment

Report

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED BY: T. Scott Peck, MCIP, RPP, Deputy Chief Administrative Officer/Director, Watershed Planning and Engineering

PREPARED BY: Mike Stone, MCIP, RPP, Manager, Watershed Planning, Stewardship & Ecological Services

DATE: November 7, 2024

RE: Permit Applications Summary Report

HCA permit applications approved by staff under the *Conservation Authorities Act* and Ontario Regulation 41/24 between the dates of September 21, 2024 – October 24, 2024 are summarized in the following Permit Applications Summary Report (PASR-9/24).

RECOMMENDATION

THAT the Board of Directors receive this Permit Application Summary Report PASR-9/24 as information.

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HAMILTON REGION CONSERVATION AUTHORITY

PERMIT APPLICATION SUMMARY REPORT (PASR 9/24)

HCA permit applications approved under the Conservation Authorities Act and Ontario Regulation 41/24 between the dates of September 21, 2024 and October 24, 2024

File Number	Date Received	Date Permit Issued	Review Days	Applicant Name	Location	Application Description	Recommendation / Conditions
P/F,C,A/24/60	05-Sep-24	24-Sep-24	21		Part Lot 22 Gore Rd Lot 22, Concession Gore Puslinch	plans for the construction of a detached dwelling, private septic system, driveway, and watercourse crossing	Approved subject to standard conditions.
A/F,C/24/51	19-Aug-24	30-Sep-24	44		141 Gravel Pit Rd Lot 37, Concession 1 Ancaster	for the two-storey addition to an existing dwelling, and new septic system	Approved subject to standard conditions.
F/F,C,A/24/19	18-Mar-24	30-Sep-24	124		909 North Waterdown Drive Lot 10, Concession 4 Flamborough	for the construction of Kaleidoscope Phases 3 and 4 residential subdivision development	Approved subject to standard conditions.

HAMILTON REGION CONSERVATION AUTHORITY

PERMIT APPLICATION SUMMARY REPORT (PASR 9/24)

HCA permit applications approved under the Conservation Authorities Act and Ontario Regulation 41/24 between the dates of September 21, 2024 and October 24, 2024

F/F,C,A/24/41	27-May-24	03-Oct-24	78		566 Highway 6 N Lot 13, Concession 3 Flamborough	for the alteration of a watercourse and construction of an industrial building and associated parking, vehicle maneuvering areas, landscaping and site servicing	Approved subject to standard conditions.
F/F,C,A/24/50	31-Jul-24	03-Oct-24	66		1255 Concession 8W to Westover Rd Lot , Concession Flamborough	for the ditching and culvert replacement works located along Concession Rd 8W	Approved subject to standard conditions.
F/F,A/24/61	09-Sep-24	09-Oct-24	26		Valens Rd Lot 24, 25, Concession 9 Flamborough	for the embankment stabilization works at Valens Reservoir - Valens Rd shoulder and erosion repair	Approved subject to standard conditions.
D/F,C,A/24/58	12-Sep-24	09-Oct-24	21		between McKay Rd and Riding Park Pl Lot 16, 17, Concession 1 Dundas	for the sediment removal and maintenance works for SWMF 24	Approved subject to standard conditions.

HAMILTON REGION CONSERVATION AUTHORITY

PERMIT APPLICATION SUMMARY REPORT (PASR 9/24)

HCA permit applications approved under the Conservation Authorities Act and Ontario Regulation 41/24 between the dates of September 21, 2024 and October 24, 2024

SC/F,C,A/24/31	21-May-24	09-Oct-24	74		1054 Barton St Lot 7, 8, Concession 2 Stoney Creek	proposed watercourse alteration, grading, and construction for subdivision	Approved subject to standard conditions.
A/F,C/24/63	28-Aug-24	10-Oct-24	16		1131 Garner Rd E Lot 53, Concession 3 Ancaster	for the upgrades to existing Garner Road Water Pumping Station	Approved subject to standard conditions.
A/F,C,A/24/65	11-Sep-24	10-Oct-24	31		981 Mineral Springs Rd Lot 38, 39, Concession 1 Ancaster	for the bank protection works along Sulphur Creek	Approved subject to standard conditions.
SC/F,C,A/24/67	25-Sep-24	10-Oct-24	17		10 Lakeside Dr Lot 13, Concession BF Stoney Creek	for the construction of new shore protection	Approved subject to standard conditions.
D/F,C,A/24/55	24-Jul-24	15-Oct-24	41		McMurray St Bridge 090 Lot 15, Concession 1 Dundas	for the rehabilitation works to Bridge 090	Approved subject to standard conditions.
F/C,A/24/68	17-Sep-24	17-Oct-24	32		695 to 1431 Concession 6 Rd W Lot , Concession Flamborough	for vegetation maintenance works along Enbridge lines 7, 8 and 9 pipeline right-of-way	Approved subject to standard conditions.

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Hamilton Region Conservation Authority

Minutes

Board of Directors Meeting

Date October 3, 2024

Minutes of the Board of Directors meeting held on Thursday, Date, 2024 at 6:00 p.m., at the HCA main office, 838 Mineral Springs Road, in Ancaster, and livestreamed on YouTube.

PRESENT: Brad Clark – in the Chair
Craig Cassar
Lisa DiCesare
Wayne Terryberry (virtual)
Maureen Wilson (virtual)

Susan Fielding
Brian McHattie (virtual)
Alex Wilson (virtual)

Graham Reid – Foundation Chair (virtual)

REGRETS: Jeff Beattie, Matt Francis, Mike Spadafora

STAFF PRESENT: Lisa Burnside, Gord Costie, Marlene Ferreira, Scott Fleming, Liam Fletcher, Brandon Good, Matt Hall, Amanda Martin, Scott Peck, Jaime Tellier, and Sandra Winninger

OTHERS: Richard Leitner

1. Call to Order

The Chair called the meeting to order and welcomed everyone present. HCA's Indigenous Land Acknowledgement was read.

2. Declarations of Conflict of Interest

The Chair asked members to declare any conflicts under the Board's Governance Policy. There were none.

3. Approval of Agenda

The Chair requested any additions or deletions to the agenda. Lisa Burnside advised one addendum to the agenda, an email correspondence regarding the

minutes of the September 5, 2024 Board of Director's meeting. It was added as a consent item, added as number 5.6 on the agenda.

BD12, 3396

**MOVED BY: Lisa DiCesare
SECONDED BY: Craig Cassar**

THAT the agenda be approved, as amended.

CARRIED

4. Delegations

There were none.

Wayne Terryberry joined the meeting.

5. Consent Items for Applications, Minutes and Correspondence

The following consent items were adopted:

- 5.1. Permit Applications Summary Report
- 5.2. Approval of Board of Directors Minutes – September 5, 2024
- 5.3. Approved August 15, 2024 Budget and Administration Committee Minutes – for receipt only
- 5.4. Two Email Correspondence with respect to the Ancaster Well, Labeled a and b
- 5.5. Correspondence shared at the September 5, 2024 Board of Directors Meeting – Presentation handouts, labeled a to d
- 5.6. One Email Correspondence with respect to the minutes of September 5, 2024 Board of Director's Meeting

6. Foundation Briefing

Graham Reid, Vice Chair of the Foundation, reported The Foundation received a total of **\$22,945** in new donations from September 1st to September 30th 2024. This includes:

- **\$5,025** to the Dundas Valley Conservation Area Fund
- **\$4,547** to the Trail Development Fund
- **\$4,222** to the Area of Greatest Need Fund
- **\$3,070** to the Environmental Education Fund

- And **\$6,081** that was directed to various projects including the Stewardship Fund, Dundas Valley Trails and Tribute Trees.

This brings the Foundation's fiscal year-to-date fundraising total to **\$793,511** which is 98% of the annual goal. The Foundation has embarked on new strategic planning process with the board recently participating in a kick off workshop. The plan should be finalized by the end of the year; highlights will be shared with the HCA board.

BD12, 3397

MOVED BY: Lisa DiCesare

SECONDED BY: Brian McHattie

THAT the Foundation Briefing be received.

CARRIED

7. Member Briefing

7.1. New Saltfleet Conservation Area Video

Scott Peck presented the video, indicating that it, along with a fact sheet and background sheet on the project, is available on the HCA website. It was noted that area politicians, including the Mayor of Hamilton, City Manager of Hamilton and MPP Sandy Shaw have been given tours of the wetland and additional tours are being scheduled. Member's questions were answered.

BD12, 3398

MOVED BY: Susan Fielding

SECONDED BY: Lisa DiCesare

THAT the Member Briefing regarding the Saltfleet Conservation Area Video be received.

CARRIED

7.2. 2025- 2029 Strategic Plan

Lisa Burnside provided an overview of the public version of the HCA's 2025 – 2029 Strategic Plan. She noted that marketing has prepared a social media campaign to share the new plan on the HCA website and social media platforms, and that the plan will also be sent out via our newsletter to our membership pass holders and foundation donors. Additionally, it will be distributed to key stakeholders such as our participating municipalities and local MPPs and other conservation authorities. Staff will continue to prepare annual reports to document our success and progress.

In response to a question raised by Councillor Alex Wilson, Lisa indicated Board members will continue to be engaged with the goals and objectives of the Strategic Plan through their input of yearly initiatives. She noted that for 2025, the year-one priorities were approved at the June Board meeting.

BD12, 3399

**MOVED BY: Lisa DiCesare
SECONDED BY: Wayne Terryberry**

**THAT the Member Briefing regarding the 2025 – 2029
Strategic Plan be received.**

CARRIED

8. Business Arising from the Minutes

There was none.

9. Reports from Budget & Administration Committee and Conservation Advisory Board

9.1. Budget & Administration Committee – September 26, 2024
(Recommendations)

9.1.1 BA 2427 Draft 2025 Operating and Capital Budgets

Susan Fielding brought forward the staff report. She provided a summary noting the following:

- a balanced budget that reflects a continuation of all programs and services and also addresses capacity building and investing in staff in order to achieve priorities of HCA's new Strategic Plan
- forecasting total spending of \$21.8 million. This includes \$17.7 million for operations and \$4.1 million for capital projects
- operating budget contains a 3% increase to municipal levy, modest use of reserves, some contributions from the Province and is balanced through use of \$1.56M in self-generated revenues from our conservation areas
- capital budget, which includes major maintenance to HCA's infrastructure and new projects, will be achieved through the \$2 million block funding from the City of Hamilton and \$2.1M use of reserves for the creation of the second wetland at Saltfleet, and renovations to the main office to accommodate additional staff

Scott Fleming presented a detailed overview of the budgets and answered the member's questions.

Councillor Alex Wilson requested clarification on securing additional land and how funds could be set aside in the budget. Lisa Burnside indicated that staff will be reviewing the Land Securement Strategy and priority lands along with funding strategies as part of the Year 1 initiatives in the new strategic plan. She indicated any potential acquisitions would be brought to the Board for their approval.

The question regarding funding for land acquisition was further discussed. Lisa Burnside reviewed the Program and Services' categories, indicating that buying land is not a mandatory program and service as defined by the province. Land acquisition falls under Category 3, programs/services that the Board deems desirable; funding for this category is noted as being self generated. It would require consultation and agreement with the City for any special levy request to use municipal funding. She indicated there are other potential funding sources such as HCA Foundation, grants and use of self generated revenue, that HCA has successfully utilized in the last number of years to acquire land.

BD12 3400

MOVED BY: Susan Fielding

SECONDED BY: Craig Cassar

**THAT the Budget & Administration Committee
recommend to the Board of Directors:**

**THAT the 2025 Draft Operating Budget, as presented, be
endorsed for approval and;**

**THAT the 2025 Draft Capital Budget, as presented, be
endorsed for approval**

CARRIED

9.1.2 BA2428

Multi-year Budgeting Approach for 2026

As part of discussion on the 2025 Budget, the Budget and Administration Committee passed a motion to discuss multi-year budgeting as part of the 2026 budget process which aligns to the new Strategic Plan Priorities; these will be raised at an upcoming Budget and Administration Committee Meeting.

BD12 3401

MOVED BY: Susan Fielding

SECONDED BY: Wayne Terryberry

**THAT HCA staff develop an approach for multi-year
budgeting as part of the 2026 budget process, which
aligns to the new Strategic Plan Priorities; and further**

**THAT this return to an upcoming B&A meeting for review
as an agenda item.**

CARRIED

There weren't any reports from the Conservation Advisory Board.

10. Other Staff Reports/Memoranda**10.1. Valens Lookout Tower Tender Results**

Matt Hall brought forward the staff report and answered members' questions.

BD12 3402**MOVED BY: Craig Cassar
SECONDED BY: Alex Wilson**

THAT the construction tender for the Valens Lake C.A. Lookout Platform Replacement Project, be awarded to Three Seasons Landscape Group Inc. for a total cost of \$203,343.50 which includes a contingency sum and HST.

CARRIED**10.2. Watershed Conditions Report**

Scott Peck presented a summary of the memorandum, highlighting that both Christie and Valens' reservoirs are below summer levels.

BD12, 3403**MOVED BY: Lisa DiCesare
SECONDED BY: Maureen Wilson
THAT the memorandum entitled Watershed Conditions Report be received.****CARRIED****10.3. Conservation Areas Experiences Update**

Liam Fletcher provided a summary of the memorandum and answered the members' questions. He indicated that Fifty Point, after undergoing the CleanMarine Audit, has been awarded Diamond Elite rating, which is the highest level of achievement. The program sets out best practices to reduce and prevent water, air and land pollution from recreational boating activities in Ontario.

BD12, 3404**MOVED BY: Susan Fielding
SECONDED BY: Craig Cassar**

THAT the memorandum entitled Conservation Areas Experiences Update be received.

CARRIED**11. New Business**

There was none.

12. In-Camera Items

There was none.

13. Next Meeting

The next meeting of the Board of Directors will be held on Thursday, November 7, 2024 at 6:00 p.m. at the HCA Main Administration Office – Woodend Auditorium, 838 Mineral Springs Road, Ancaster, Ontario.

14. Adjournment

On motion, the meeting adjourned.

Scott Fleming
Secretary-Treasurer

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HAMILTON CONSERVATION AUTHORITY

Conservation Advisory Board

MINUTES

June 13, 2024

Minutes of the Conservation Advisory Board meeting held on Thursday, June 13, 2024 5:00 p.m., Valley Park Recreation Centre, following site visit 4:00 p.m., at the Eramosa Karst Conservation Area.

PRESENT:

Wayne Terryberry – in the Chair	
Elise Copps	Sherry O'Connor
Tyler Cunningham	Haley McRae
Jamie Freeman	Noah Stegman

REGRETS: **Natalie Faught, Brian McHattie, Cortney Oliver**

STAFF PRESENT: **Madolyn Armstrong, Lisa Burnside, Gord Costie, Marlene Ferreira, Ben Garvie, Brandon Good, Matt Hall, Travis Haws, Ben Laing, Amanda Martin, Lesley McDonell, Bryson McEwen, Scott Peck, Mike Stone, Jaime Tellier, Sandra Winninger and Kasia Zgurzynski**

OTHERS: **Media – None**

1. Welcome

The Chair called the meeting to order and welcomed everyone present.

2. Declaration of Conflict of Interest

The Chair asked members to declare any conflicts under the HCA Administrative By-law. There were none.

3. Approval of Agenda

The Chair requested any additions or deletions to the agenda; there were none.

**CA2413 MOVED BY: Haley McRae
 SECONDED BY: Jamie Freeman**

THAT the agenda be approved.

CARRIED

4. Delegations

There were none.

5. Member Briefing

There was none.

6. Chairman's Report on Board of Directors Actions

The following items were approved by the Board of Directors at the May 2, 2024 meeting:

CA 2411 HCA Natural Hazard Infrastructure – Asset Management and
 Operation Plans

CA 2412 Saltfleet Study Area Master and Management Plans

7. Approval of Minutes of Previous Meeting

7.1. Minutes – Conservation Advisory Board (April 11, 2024)

**CA 2414 MOVED BY: Tyler Cunningham
 SECONDED BY: Noah Stegman**

**THAT the minutes of the April 11, 2024 Conservation Advisory
Board meeting be approved.**

CARRIED

8. Business Arising from the Minutes

There was none.

9. Staff Reports/Memorandums

Reports for Recommendation

9.1 Draft Conservation Area Strategy and Draft Watershed Based Resource Management Strategy

Scott Peck reviewed the staff report indicating that the two strategies are required by Provincial legislation and are to be completed by year's end. He also noted that once the strategies are approved by the Conservation Advisory Board and the Board of Directors, they will be circulated for stakeholder and public comment over the summer months; the comments will be incorporated into the final document, following which, they will be brought back to CAB and the Board of Directors for final approval.

Members' questions were answered following the presentation.

**CA 2415 MOVED BY: Tyler Cunningham
 SECONDED BY: Haley McRae**

THAT the Conservation Advisory Board recommends to the Board of Directors of the Hamilton Conservation Authority that staff be directed to undertake public and stakeholder consultation regarding the Draft HCA Conservation Area Strategy and the Draft HCA Watershed-based Resource Management Strategy.

CARRIED

9.2 Invasive Species Strategy 2024

Lesley McDonell reviewed the report, highlighting updates that have occurred since the 2016 Invasive Strategy was adopted: the hiring of two full time Invasive Technicians; prioritization of species of invasive plants to be removed/reduced; and perfecting a mapping tool to better track removals and monitoring of Invasive Species.

Members' questions were answered following the presentation.

**CA 2416 MOVED BY: Jamie Freeman
 SECONDED BY: Noah Stegman**

THAT the Conservation Advisory Board recommends to the Board of Directors:

THAT the updated Invasive Species Strategy 2024 be adopted.

CARRIED

Memorandums to be Received

9.3 Spencer Gorge Reservation System for 2024 Operations)

Gord Costie and Brandon Good reviewed the memorandum, highlighting the measures taken from past to present, to help improve visitors' experience as well as addressing the concern of neighbours. Enhancements for 2024 include requiring reservations only during the fall colour period as well as developing dual reservation to access to both Webster and Tew Falls parking lots with one parking reservation.

Members' questions were answered following the presentation.

CA 2417

MOVED BY:

SECONDED BY:

**THAT the memorandum Spencer Gorge Conservation Area
2024 Reservation Service be received**

CARRIED

9.4 Natural Areas Inventory (NAI) Project update

Mike Stone reviewed the memorandum, providing members with the background to the Project as well as how the NAI will differ from previous inventories: focusing on inventory gaps to help provide a baseline for measuring the state of Hamilton's biodiversity. He also noted that the partners, Hamilton Naturalist Club, City of Hamilton and the HCA signed the Collaborative Agreement in May 2024.

Members' questions were answered following the presentation.

CA 2418

MOVED BY: Jamie Freeman

SECONDED BY: Noah Stegman

**THAT the memorandum Natural Areas Inventory (NAI) Project
Update be received**

CARRIED

10. New Business

There was none.

11. Next Meeting

The next meeting of the CAB is scheduled for Thursday, August 8, 2024, at 4:00 p.m., location TBD pending confirmation of a site visit.

12. Adjournment

On motion, the meeting was adjourned.

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Report

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Management Services

MEETING DATE: October 10, 2024

RE: HCA Conservation Area Strategy pursuant to Ontario Regulation 686/21

STAFF RECOMMENDATION

THAT the Conservation Advisory Board recommends to the Board of Directors:

THAT the Conservation Area Strategy (2024) be approved.

BACKGROUND & PURPOSE

Section 21.1 of the Conservation Authorities Act sets out Mandatory Programs and Services that all conservation authorities must deliver within their watershed, with these requirements outlined in greater detail in Ontario Regulation 686/21. Section 21.1.1 of the CA Act details Municipal Programs and Services that conservation authorities are permitted to provide under agreement to their municipal partners while Section 21.1.2 provides direction related to Other Programs and Services conservation authorities may deliver. Ontario Regulation 686/21, specifically, subsection 9(1), paragraph 1 outlines that all conservation authorities must complete a Conservation Area Strategy. The Conservation Area Strategy is required by regulation to be completed on or before December 31, 2024.

The Conservation Area Strategy identifies broad objectives for the Hamilton Conservation Authority's (HCA) Conservation Areas and related programs and services. The strategy was undertaken by the HCA to meet the requirements as outlined in the Conservation Authorities Act and Ontario Regulation 686/21.

The purpose of this report is to provide the final version of the Conservation Area Strategy for approval.

STAFF COMMENT

Ontario Regulation 686/21

Ontario Regulation 686/21 requires that a Conservation Area Strategy include the following components.

1. Objectives established by the authority that will inform the authority's decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands.
2. Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services.
3. Where the authority considers it advisable to achieve the objectives referred to in paragraph 1, an assessment of how the lands owned and controlled by the authority may,
 - i. augment any natural heritage located within the authority's area of jurisdiction, and
 - ii. integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.
4. The establishment of land use categories for the purpose of classifying lands in the land inventory described in Section 11 based on the types of activities that are engaged in on each parcel of land or other matters of significance related to the parcel.
5. A process for the periodic review and updating of the conservation area strategy by the authority, including procedures to ensure stakeholders and the public are consulted during the review and update process.

The HCA Conservation Area Strategy fulfills the requirements of Ontario Regulation 686/21 and provides guidance for the management and operation of the HCA's conservation areas.

Consultation

Consultation for the Conservation Area Strategy was undertaken in two phases. The first phase involved posting information regarding the development of the strategy on the HCA's dedicated website for the Conservation Area Strategy and reviewing the

process and intent of the Conservation Area Strategy with the Mississauga of the Credit First Nation and the Six Nations of the Grand River First Nation.

The second phase of the consultation process involved the circulation of the draft Conservation Area Strategy for broader consultation.

Through the second consultation phase, the consultation websites were visited 288 times. Limited public comments were received, however, comments provided were favourable and supported the strategy with no revisions to the strategy required.

Through direct stakeholder engagement, comments were received from the City of Hamilton. The comments were incorporated into the strategy as appropriate to provide further details related to the official plan policy and did not result in substantive changes to the overall strategy.

AGENCY COMMENTS

N/A

LEGAL/FINANCIAL IMPLICATIONS

Ontario Regulation 686/21, specifically, subsection 9(1), paragraph 1 outlines that all conservation authorities must complete a Conservation Area Strategy. The Conservation Area Strategy is required by regulation to be completed on or before December 31, 2024. Staff time required to complete the strategy was allocated from within the existing operating budget for 2024.

CONCLUSIONS

The Conservation Area Strategy has been prepared to meet the requirements of Ontario Regulation 686/21 and to provide guidance for the management and operation of the HCA's conservation areas.

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Hamilton Conservation Authority Conservation Area Strategy

2024



A Healthy Watershed for Everyone

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1.0 Introduction

1.1 Purpose and Regulatory Framework

The Conservation Area Strategy identifies broad objectives for the Hamilton Conservation Authority's (HCA) Conservation Areas and related programs and services. The strategy was undertaken by the HCA to meet requirements as outlined in the [Conservation Authorities Act](#) (CA Act) and [Ontario Regulation 686/21](#) (Regulation) and is intended to provide guidance for the management and operation of the HCA's conservation areas.

Section 21.1 of the CA Act sets out Mandatory Programs and Services that all conservation authorities must deliver within their watershed, with these requirements outlined in greater detail in the Regulation. Section 21.1.1 of the CA Act details Municipal Programs and Services that conservation authorities are permitted to provide under agreement to their municipal partners while Section 21.1.2 provides direction related to Other Programs and Services conservation authorities may deliver. The Regulation, specifically, subsection 9(1), paragraph 1 outlines that all conservation authorities must complete a Conservation Area Strategy. The main requirements of a Conservation Area Strategy per Section 10 of the Regulation are outlined in Figure 1.

1. Objectives established by the authority that will inform the authority's decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands.
2. Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services.
3. Where the authority considers it advisable to achieve the objectives referred to in paragraph 1, an assessment of how the lands owned and controlled by the authority may,
 - i. augment any natural heritage located within the authority's area of jurisdiction, and
 - ii. integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction.
4. The establishment of land use categories for the purpose of classifying lands in the land inventory described in Section 11 based on the types of activities that are engaged in on each parcel of land or other matters of significance related to the parcel.
5. A process for the periodic review and updating of the conservation area strategy by the authority, including procedures to ensure stakeholders and the public are consulted during the review and update process.

Figure 1 – Conservation Area Strategy

1.2 About the Hamilton Conservation Authority

The Spencer Creek Conservation Authority, the forerunner of the HCA, was created in 1958. Subsequently, Red Hill Creek, Stoney Creek, Battlefield Creek and the Numbered watercourse in the former City of Stoney Creek and City of Hamilton were added and the HCA was formed in 1966 pursuant to the CA Act. The HCA is located at the western end of Lake Ontario and has a watershed area of 479km². The HCA watershed is located in the Treaty Lands and Territory of the Mississaugas of the Credit First Nation and traditional territory of the Haudenosaunee. As shown on Map 1, the majority of the HCA's watershed is included within the City of Hamilton with the headwaters of Spencer Creek and Fletcher Creek located in the Township of Puslinch. A small portion of the Town of Grimsby is located at the east end of the HCA's watershed.

The HCA operates under the requirements of the CA Act. Section 0.1 of the CA Act states that:

“The purpose of this Act is to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario.”

The Board of Directors of the HCA is comprised of 11 Directors representing 2 municipalities. Seven Councillors and 3 citizen appointees represent the City of Hamilton while 1 appointee represents the Township of Puslinch. The HCA works closely with our municipal partners as well as local groups and agencies and both the Federal and Provincial governments.

The HCA owns or manages 4,732 ha (11,695 acres) of land within our watershed jurisdiction. This includes the Westfield Heritage Village Conservation Area and portions of the Chippawa Rail Trail and the Toronto Hamilton & Brantford (TH&B) Rail Trail that are located outside of the HCA's watershed.

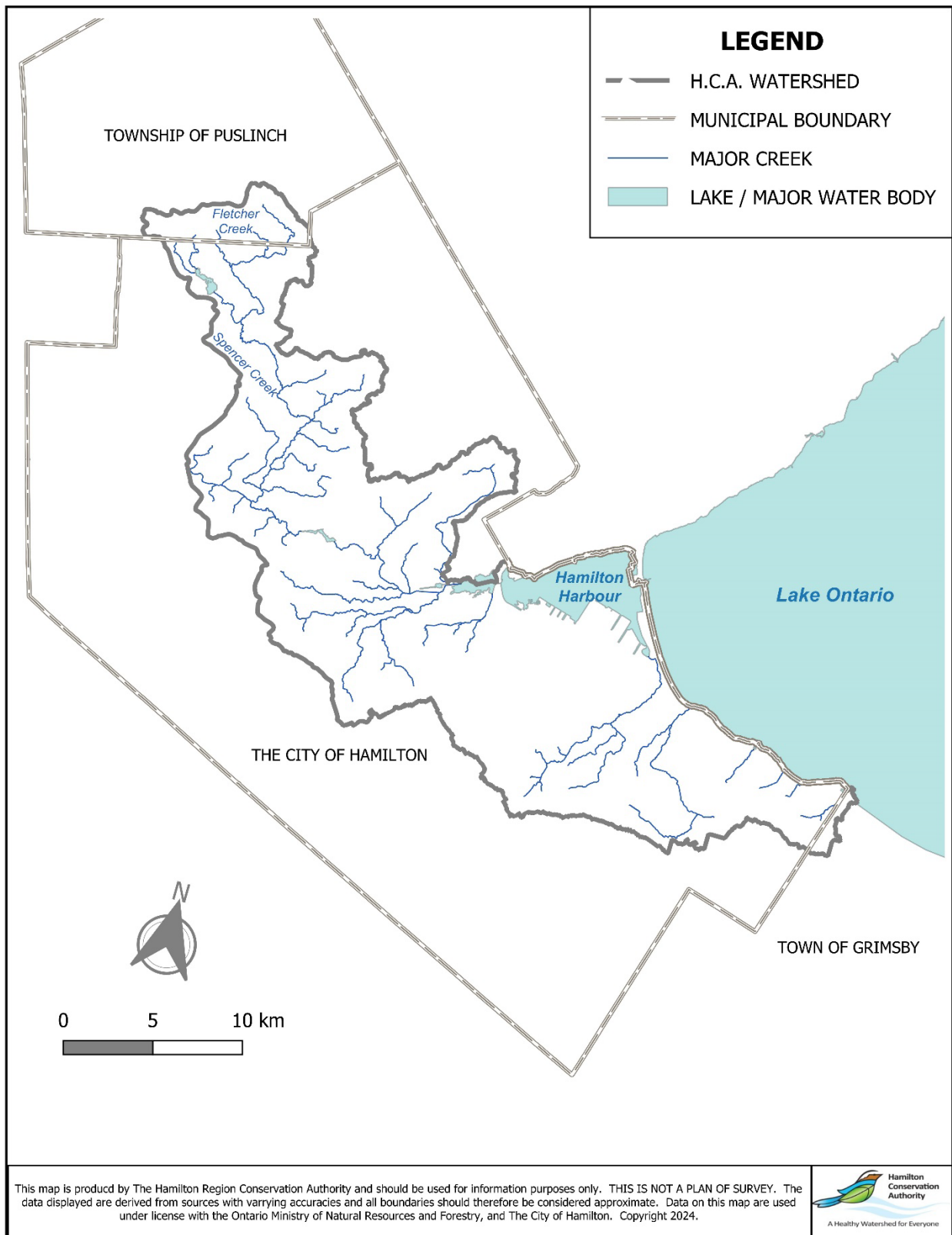
2.0 Strategic Direction

HCA's Strategic Plan 2025-2029 details the HCA's vision, mission, values as well as our strategic priorities.

HCA's vision is “A healthy watershed for everyone”.

HCA's mission is “To lead in the conservation of our watershed and connect people to nature.”

The Strategic Plan highlights the HCA's values as follows:



Map 1 – HCA Watershed

- **Collaboration** - We foster relationships and teamwork internally and externally for collective success.
- **Customer Service** - We deliver excellent service that builds trust.
- **Integrity** - We uphold honesty, professionalism and ethics in all actions and decisions.
- **Respect** - We recognize and value diverse perspectives and work to understand and protect our changing environment.
- **Innovation** - We encourage creativity and embrace new ideas and technology to drive progress.

The HCA's Strategic Plan highlighted 4 Priority Areas.

- Water Resource Management
- Organizational Excellence
- Natural Heritage Conservation
- Connecting people to Nature

For each Priority Area, several initiatives are included, and these priority areas and associated initiatives guide programs and services and the development of department work plans, budgets and approaches.

2.2 Conservation Area Strategy Objectives

Section 10(1) of Ontario Regulation 686/21 notes that a Conservation Area Strategy shall include "Objectives established by the authority that will inform the authority's decision-making related to the lands it owns and controls, including decisions related to policies governing the acquisition and disposition of such lands".

Based on this direction, Section 21.1 ii) of the CA Act which states "Programs and services related to the conservation and management of lands owned or controlled by the authority, including any interests in land registered on title, staff input, a review of background documentation and input through the consultation process, the following objectives have been developed to meet the requirements of the CA Act and Ontario Regulation 686/21.

- To ensure that all present and future HCA land holdings contribute to the vision and mandate of the HCA, and support an integrated watershed management approach;*
- To pursue an active land securement program to increase the size of the HCA conservation lands and linkages to these lands;*
- To protect and enhance the ecological integrity of the lands within the HCA's watershed and maintain and enhance a connected natural heritage system*

- d. To undertake research, monitoring and evaluation of the natural heritage system, and organize current information to identify information gaps and strengthen knowledge of the HCA's watershed natural heritage system;*
- e. To provide environmentally sustainable passive and active recreation opportunities, as appropriate, within the HCA's conservation areas;*
- f. To determine the current public uses occurring on these lands, identify user groups and principle uses, and identify actions to meet future needs for these lands;*
- g. To ensure that future management of the CA lands will be informed by stakeholder and public input.*
- h. To maintain, enhance and build new partnerships to enhance connectivity of natural heritage lands and trail networks where possible.*

2.3 HCA Land Securement Strategy

At the December 19, 2019 Board of Directors meeting, the 2020 HCA Land Securement Strategy (LSS) was endorsed. The goal of the Land Securement Strategy is to focus on natural areas, linkages, infilling and creating larger core area conservation areas. Given the vast area of land within the HCA watershed, it is inconceivable that all potential lands would be secured by public agencies or land trusts. With existing funding levels and the ability to locate willing parties, the HCA will approach land acquisition based on a willing buyer-willing seller philosophy. Acquisition will be completed based on available opportunities to acquire targeted properties and will be considered on a case-by-case basis and subject to funding. Land disposition is not envisioned by the HCA. In the unlikely event that a property does not have existing or potential ecological significance, does not meet the noted securement criteria as detailed in the LSS and has no pre-existing agreement to honour regarding disposal, the parcel may be considered for disposition from which proceeds would be directed towards the HCA's land acquisition account to be used to secure additional lands.

2.4 HCA's Annual Budget

The HCA undertakes an annual budget process with the Board of Directors approving the final budget. The budget is based on the approved HCA Strategic Plan, departmental work plans, master and management plans for HCA conservation areas as well as prioritized action items. To meet the requirements of the CA Act and associated regulations, the budget details programs and services as Mandatory (Category 1), Municipal (Category 2) and Other (Category 3).

3.0 Programs and Services

Section 10 (1) 2. of Ontario Regulation 686/21 outlines that the Conservation Area Strategy shall provide the “Identification of the mandatory and non-mandatory programs and services that are provided on land owned and controlled by the authority, including the sources of financing for these programs and services.” The following tables highlight the mandatory and non-mandatory programs and services undertaken on land owned and controlled by the HCA. It is noted that this information has been obtained from the approved HCA Inventory of Programs and Services dated March 2, 2023. The Inventory of Programs and Services was utilized as part of the required municipal agreements with the City of Hamilton and the Township of Puslinch.

Mandatory (Category 1)

Program/Service	Sources of Funding
Section 29 Minister’s regulation Rules for Conduct in Conservation Areas (O. Reg. 688/21)	Municipal Levy and Self-Generated
Conservation Area Strategy – As required by O. Reg. 688/21	Municipal Levy
Land Inventory – As required by O. Reg. 688/21	Municipal Levy
<p>Management, operation and Maintenance of CA owned lands – This includes Management and Maintenance of HCA owned lands</p> <p>Includes: Stewardship and restoration, Master and management plans, hazard tree and invasive species management and, Ecological monitoring</p> <p>Programs and services to maintain any facilities, trails or other amenities that support public access and recreational activities in conservation areas and that can be provided without the direct support or supervision of staff employed by the authority or by another person or body</p>	Municipal Block Funding and Self-Generated

Municipal (Category 2)

Program/Service	Sources of Funding
Dofasco 200 Trail and LaFarge 2000 Trail	Municipal Block Funding and Self-Generated
Cultural Heritage Education and Experiences	Municipal Levy
Land Lease and Agreement Management	Mgmt. fee cost as per agreement with City of Hamilton for Confederation Beach Park

Other (Category 3)

Program/Service	Sources of Funding
Management, operation and maintenance of CA owned lands for active recreation	Self-Generated and Municipal Block Funding
Outdoor Environmental Education	Self-Generated
Land Lease and Agreement Management	Self-Generated
Land Acquisition Program	Self-Generated
Partnership Building and Volunteer Support	Self-Generated

The HCA implements a broad and successful range of programs and services related to the HCA's owned and managed conservation lands. Future considerations flowing from the Conservation Area Strategy is outlined in Section 8 of this strategy.

4.0 Conservation Area Assessment

Ontario Regulation 686/21 outlines that when an authority considers it advisable to achieve the objectives as required under Section 10(1) 1. of the Regulation and further detailed in Section 2.2 of this Conservation Area Strategy, an assessment of how the lands owned and controlled by the authority may be undertaken to show how the authority's lands; i) augment any natural heritage located within the authority's area of jurisdiction, and ; ii) integrate with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction. Sections 4.1 and 4.2 outline the role of HCA lands within the watersheds natural heritage system as well as how HCA lands are connected and integrate with provincial and municipal lands and other publicly accessible lands and trails. It is noted that the HCA's watershed and ecological lands and the watersheds natural heritage system connects more broadly with adjoining Conservation Authority watersheds.

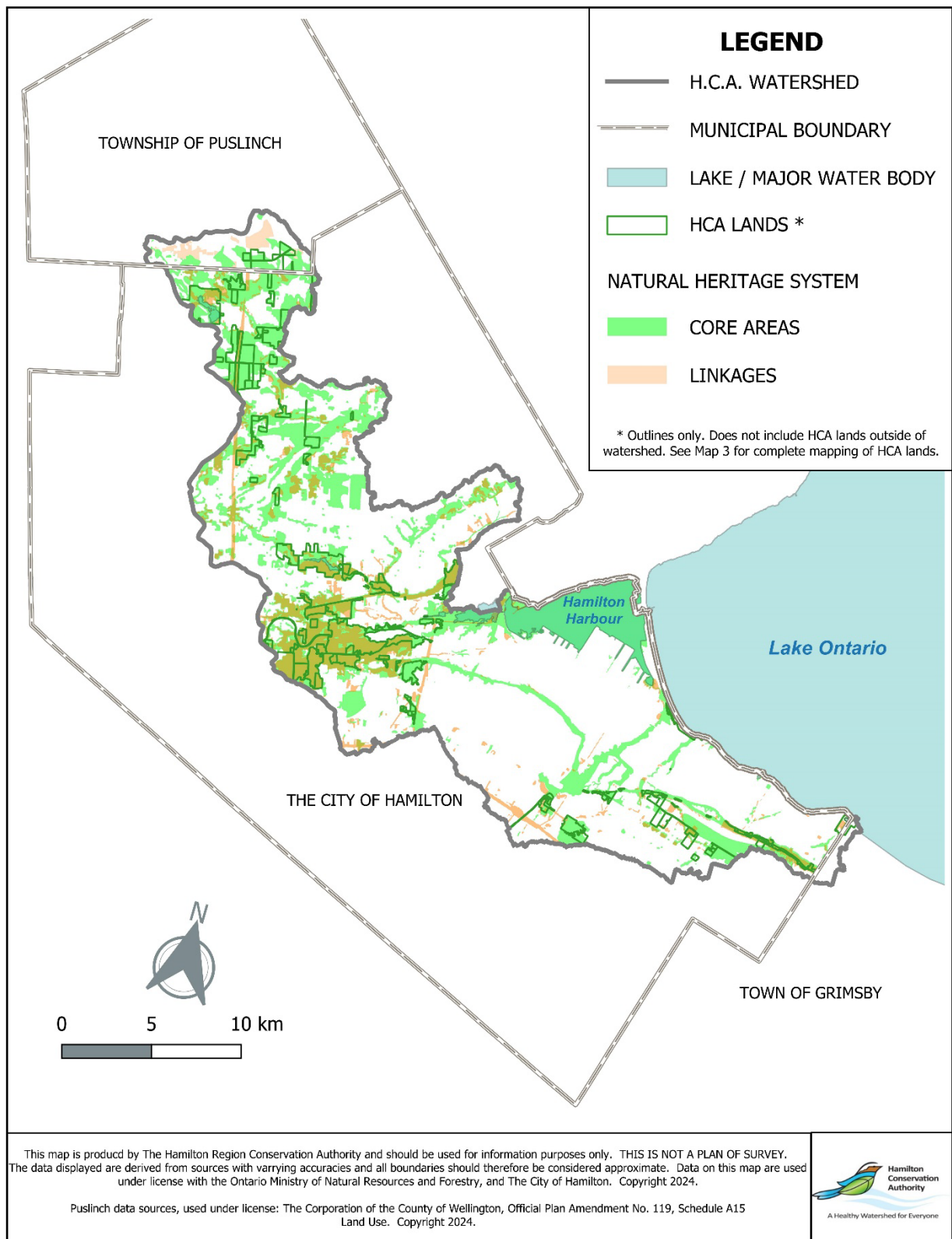
4.1 Augment Natural Heritage within HCA Watershed

Starting in 1993, the HCA, City of Hamilton, the Hamilton Naturalists and other partners have undertaken a natural areas inventory (NAI) for the area of the City of Hamilton. There have been three editions of the NAI in total with the latest NAI being completed in 2014. The City of Hamilton has used the completed NAI information as part of the development of their Urban

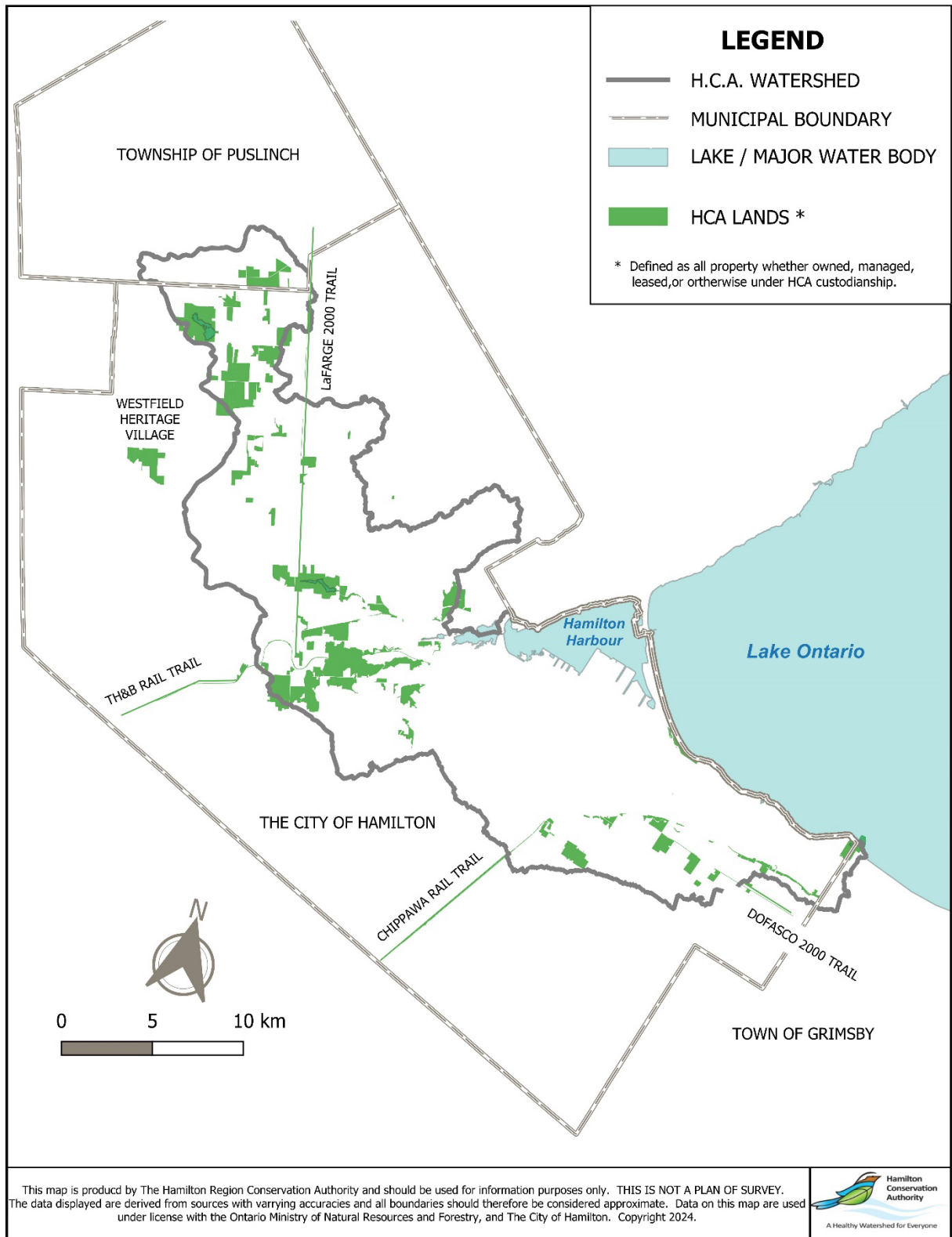
and Rural Hamilton Official Plans (Section C.2.0, City of Hamilton Rural Official Plan). Using this data and mapping, the City has designated in their Official Plans Core Areas and Linkages. The Core Areas serve to identify and protect the natural heritage lands identified in the NAI as well as the linkages that serve to connect these core areas. These Core Areas and Linkages serve as the City's identified natural heritage system. Map 2 illustrates the Natural Heritage System for the City of Hamilton and the Township of Puslinch as shown in the respective Official Plans. (Note, some Core Areas and Linkages may not be visible on the Map extent, and for greater detail the official plans should be consulted.)

As noted in Section 1.2, the HCA own or manages 4,732 ha (11,695 acres) of land within our watershed jurisdiction. This includes the Westfield Heritage Village Conservation Area and portions of the Chippawa Rail Trail and TH&B Rail Trail that are located outside of the HCA's watershed. HCA lands as noted are illustrated on Map 3.

The vast majority of HCA lands as illustrated in Map 3 comprise major components of the City's natural heritage system and are integral to the features, function and biodiversity of the natural heritage system. When considering the mapping highlighted in this section, it is evident that HCA lands play a critical role in the watershed natural heritage system as well as providing passive and active recreation lands within the watershed. HCA lands augment natural heritage features within the HCA's watershed and secure these lands for current and future generations. Further, these lands play an essential role in providing critical habitat in an increasing urban area and provides a natural land area to maintain and increase biodiversity while also mitigating the effects of climate change.



Map 2 – Natural Heritage System City of Hamilton and County of Wellington

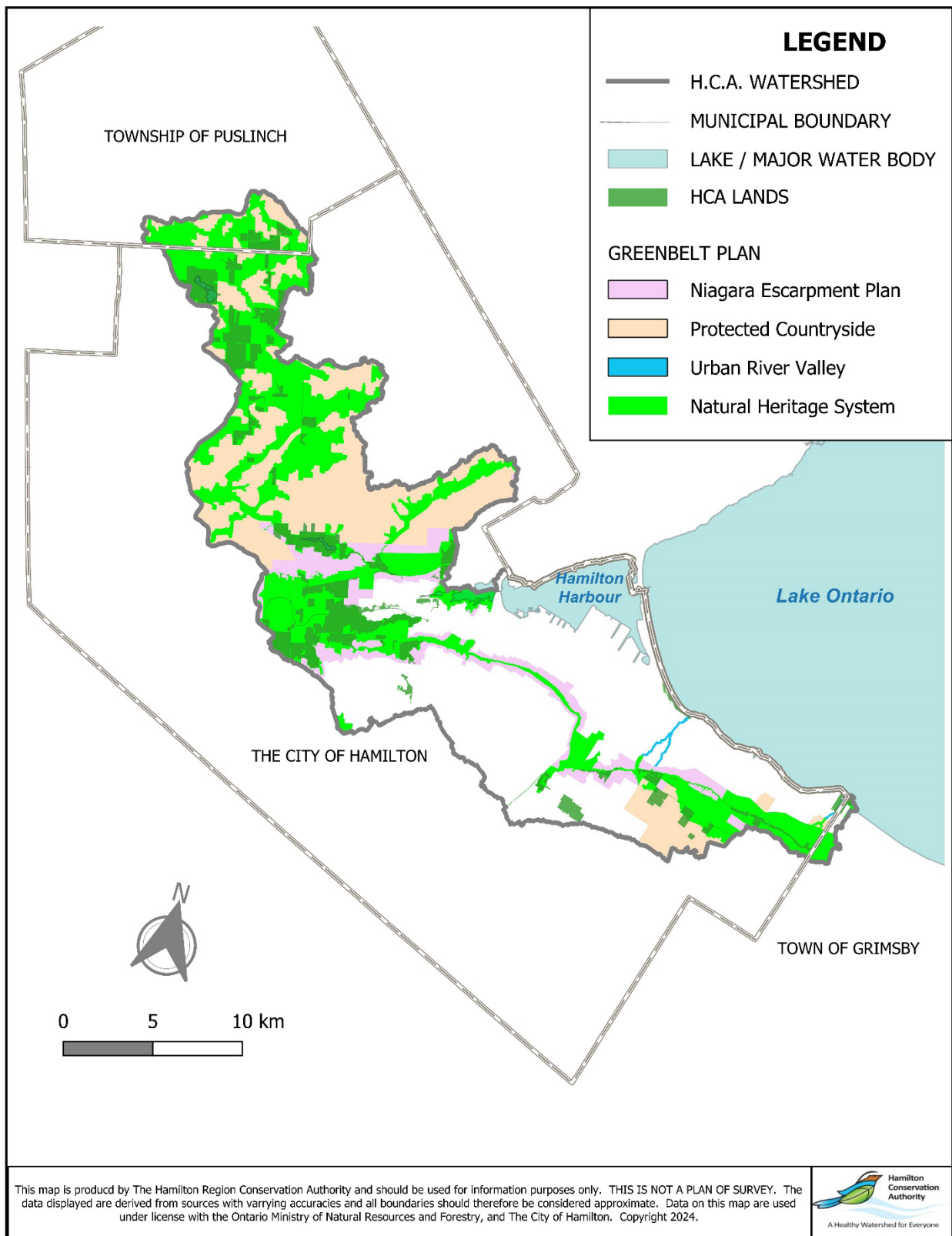


Map 3 – HCA Owned and Managed Lands

The Niagara Escarpment, portions of which are located in the HCA's watershed, is a significant topographic feature that extends from Queenston in the Niagara Region to Tobermory on the Bruce Peninsula. The Niagara Escarpment Plan which was established through the Niagara Escarpment Planning and Development Act "serves as a framework of objectives and policies to strike a balance between development, protection and the enjoyment of this important landform feature and the resources it supports." In addition to the policy framework for the broader Niagara Escarpment Plan area, "The Niagara Escarpment Plan has a system of parks and open spaces which are connected by the Bruce Trail. The system is identified as the Niagara Escarpment Parks and Open Space System (NEPOSS). NEPOSS provides opportunities for recreation, tourism, and play a fundamental role in the protection of cultural heritage resources and the Escarpment's natural heritage. Natural areas in the NEPOSS also help to mitigate and improve resilience to climate change by providing green infrastructure, capturing and storing carbon, recharging aquifers and protecting biodiversity and sensitive areas across the Escarpment." HCA master plans and projects within the NEPOSS system must comply with the requirements of the Niagara Escarpment Plan. The Niagara Escarpment Plan through the NEPOSS policies identifies the following HCA properties as being included in the NEPOSS system. In this regard, these lands augment natural heritage features at the HCA watershed scale as well as at a provincial landscape scale.

1. Spencer Gorge – Webster's Falls Conservation Area
2. Crooks Hollow Conservation Area
3. Christie Lake Conservation Area
4. Summit Bog Muskeg Preserve
5. Dundas Valley Conservation Area (A Nodal park within NEPOSS)
6. Tiffany Falls Conservation Area
7. Iroquoia Heights Conservation Area
8. Mount Albion Conservation Area
9. Felker's Falls Conservation Area
10. Devil's Punch Bowl Conservation Area
11. Vinemount Conservation Area
12. Winona Conservation Area

The Greenbelt Plan is a provincial plan with "an overarching strategy that provides clarity and certainty about urban structure, where and how future growth should be accommodated and what must be protected for current and future generations." "The Greenbelt Plan includes lands within, and builds upon the ecological protections provided by, the Niagara Escarpment Plan (NEP) and the Oak Ridges Moraine Conservation Plan (ORMCP)."

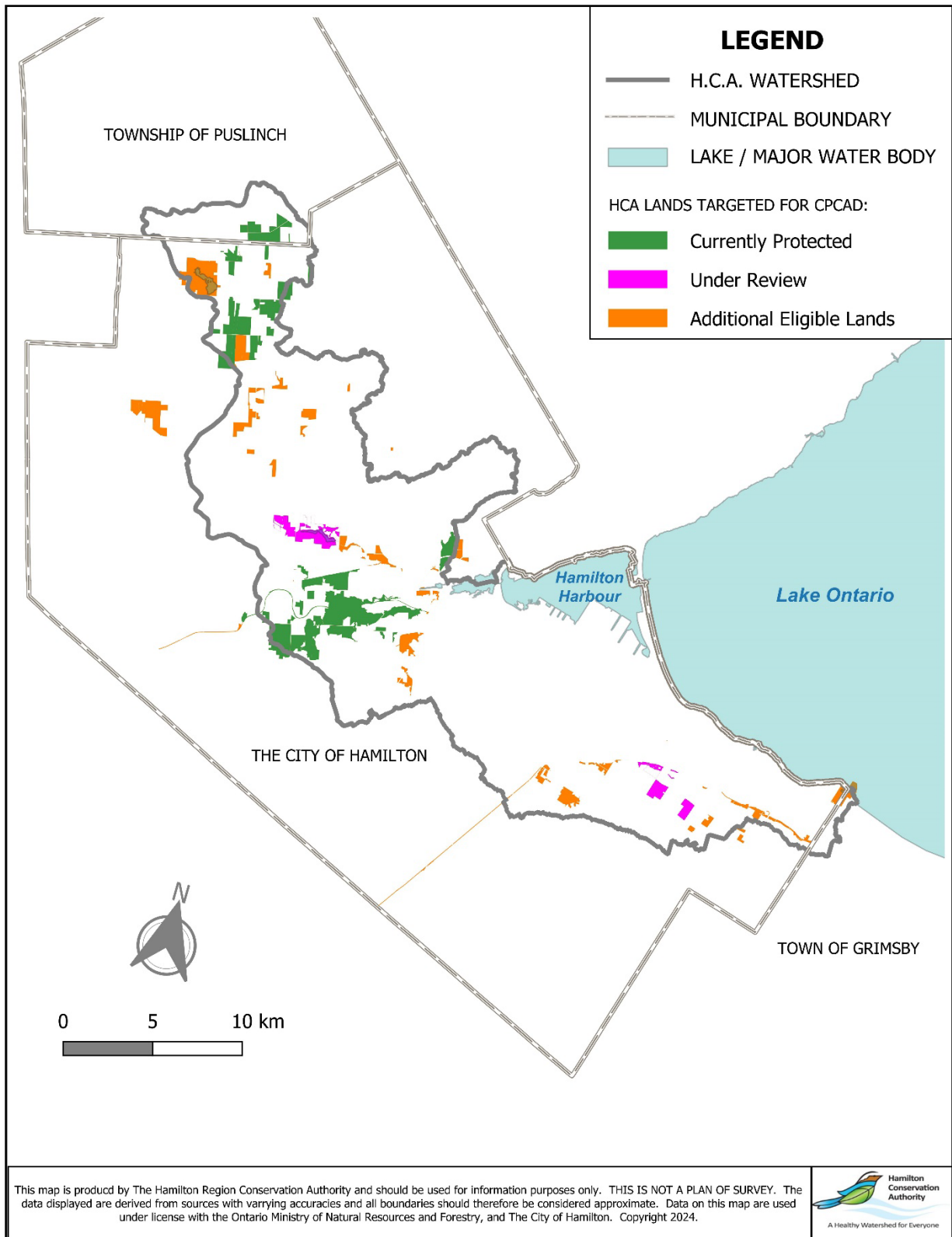


Map 4 – HCA Owned and Managed Lands in context with Niagara Escarpment Plan and Greenbelt Plan

The Greenbelt Plan provides for a Protected Countryside with the purpose to “enhance the spatial extent of agriculturally and environmentally protected lands covered by the NEP and the ORMCP while at the same time improving linkages between these areas and the surrounding major lake systems and watersheds. The Protected Countryside is made up of an Agricultural System and a Natural System, together with a series of settlement areas.” Specific policies are included in the Greenbelt Plan that provide protection for natural heritage in the Greenbelt plan area. Map 4 illustrates the boundaries of the Greenbelt Plan and the Niagara Escarpment Plan in addition to HCA lands within this area. As shown on Map 4, most of the lands owned by the HCA are located within this plan area and augment the Natural System on a Provincial scale.

At the 2022 United Nations Convention on Biological Diversity Conference, Target 3 from the Kunming-Montreal Biodiversity Framework outlined “that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed.” Canada has committed to meeting this target and through a database maintained by the Federal Department of Environment and Climate Change Canada tracks Canada’s progress to meeting this target. Working with the Ontario Ministry of Environment, Conservation and Parks and Ontario Nature, the HCA has submitted the required documentation and mapping for these lands to count towards meeting this target. Map 5 identifies HCA lands that have met the required criteria for these lands to be counted as protected lands or are under consideration to be counted. This speaks to the importance of these lands from a watershed, provincial, federal and international level as it relates to biodiversity conservation and how HCA lands augment natural heritage.

Historically, the HCA has completed and implemented master plans for the HCA’s conservation lands. These plans date to the 1970’s, 1980’s and 1990’s. More recently, the HCA has commenced a process for updating the conservation area master and management plans to reflect current conditions and guide the development and management of these conservation lands. These plans provide direction regarding both passive and active recreation, development opportunities to enhance the visitors experience as well as management and enhancement of the natural features found on site. The plans also identify opportunities for restoration of land to increase the natural heritage features of the conservation area. In this regard, the Westfield Heritage Village Conservation Area, the Valens Conservation Area, the Fifty Point Conservation Area, Fletcher Creek, Beverly Swamp, Dofasco 2000, Saltfleet, Winona and Vinemount plans have been completed and the recommendations of these plans are being implemented through the HCA’s annual budget and work plan processes. The Devil’s Punch Bowl Conservation Areas Master Plan is nearing completion as of 2024 with the Felker’s Falls, Mount Albion, Eramosa Karst, Chippewa Trail underway. The Dundas Valley Conservation Area and Christie Conservation Area master plans are scheduled to be completed in the next 3 to 4 years.



Map 5 – HCA Owned and Managed Lands – Target 3 Lands

The HCA also undertakes management and restoration work on HCA lands per the completed master plans and management plans, the HCA's Invasive Species Strategy (2024) and invasive species mapping as well as the result of the HCA's natural heritage monitoring program.

The above noted programs support the implementation of the objectives noted in Section 2.2, specifically the following objectives:

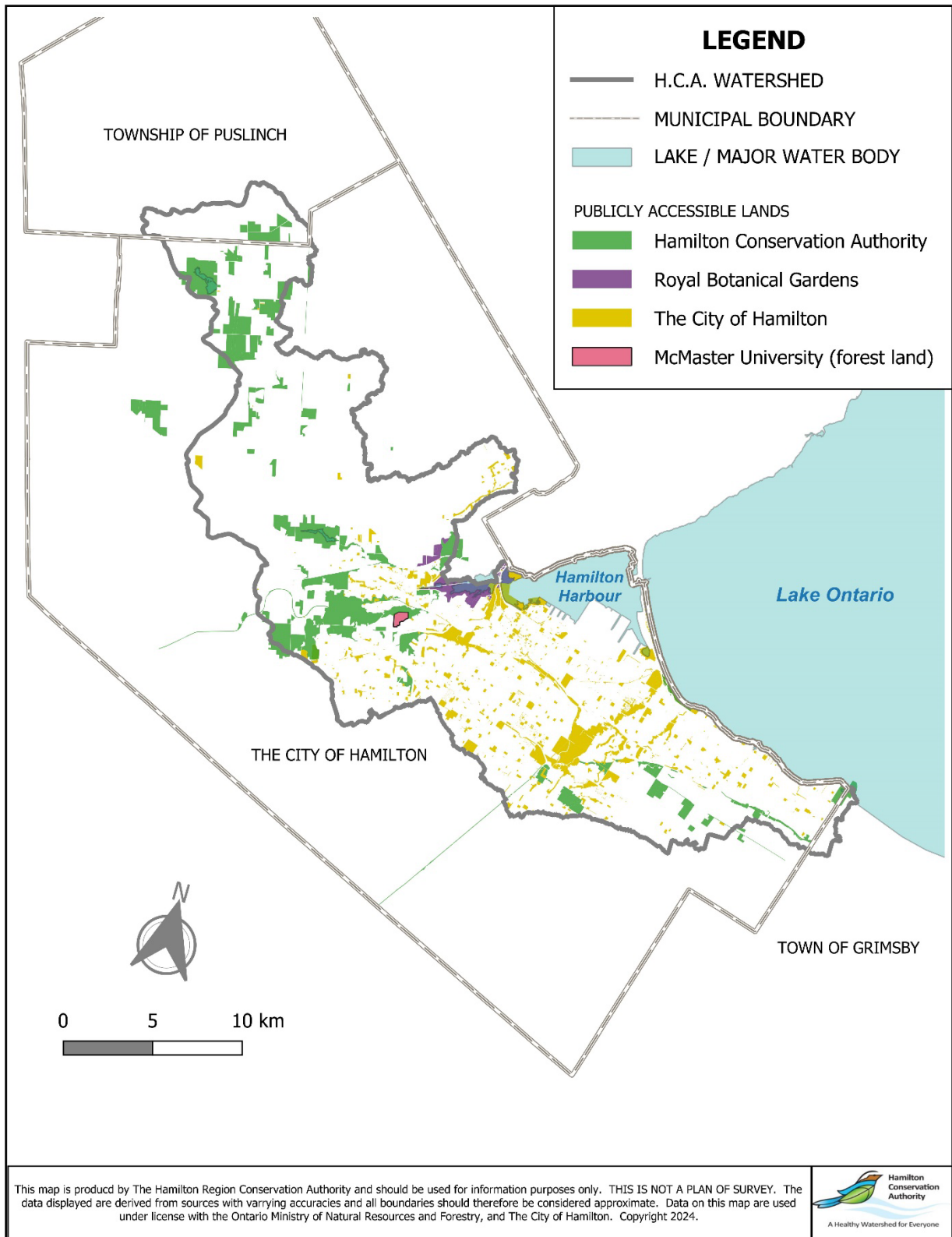
- a. To ensure that all present and future HCA land holdings contribute to the vision and mandate of the HCA, and support an integrated watershed management approach;*
- b. To protect and enhance the ecological integrity of the lands within the HCA's watershed and maintain and enhance a connected natural heritage system*
- c. To undertake research, monitoring and evaluation of the natural heritage system, and organize current information to identify information gaps and strengthen knowledge of the HCA's watershed natural heritage system;*
- d. To provide environmentally sustainable passive and active recreation opportunities, as appropriate, within the HCA's conservation areas;*
- e. To determine the current public uses occurring on these lands, identify user groups and principle uses, and identify actions to meet future needs for these lands*

4.2 Integrate with Provincial and Municipal Lands/Other Publicly accessible Lands and Trails

Map 6 provides an overview of provincial, municipal, and other publicly accessible lands located within the HCA's watershed and how they integrate with HCA lands.

4.2.1 Provincial Lands

Within the HCA's watershed, there are no provincial lands, Provincial Parks or Provincial Conservation Reserves and as such, the Conservation Area Strategy does not take this type of lands into consideration. The Province of Ontario does own the "feeder lands" that form part of the Eramosa Karst Conservation Area. These lands are managed by the HCA through an agreement with the province.



Map 6 – HCA Owned and Managed Lands in Context with City of Hamilton, Royal Botanical Gardens and McMaster University lands

4.2.2 City of Hamilton Lands

The City of Hamilton does own significant lands within the HCA watershed. These lands include a range of parks and open spaces that serve to provide both passive and active recreation opportunities. While some city parks are prioritized for recreation needs of the community, there are parks within the urban area which integrate natural, open spaces areas and provide open space for watershed residents and in some cases linkages to the broader parkland and open space system within the City of Hamilton, including HCA lands, and into adjacent communities. City owned Core Area space within the HCA watershed accounts for 1,082 hectares.

The City of Hamilton owns land located along the Niagara Escarpment as well as ravine lands within the Red Hill Creek watershed, Battlefield Creek and Stoney Creek as well as the Windermere Basin and Chedoke Creek. These lands contain natural heritage features and are Core Areas and Linkages as identified in the City of Hamilton Urban and Rural Official Plans. These lands are also part of the City's Natural Heritage System.

4.2.3 Royal Botanical Gardens Lands

Royal Botanical Gardens (RBG) is located on lands around Cootes Paradise and is within both the watershed jurisdictions of the HCA and Conservation Halton. RBG owns and manages 2,700 acres of land including 2,400 acres of nature sanctuaries, 300 acres cultivated gardens and an arboretum. These lands include Cootes Paradise which is a provincially significant coastal wetland, ravine lands and forest. These features are part of the City of Hamilton's Natural Heritage System and are located adjacent to the Dundas Valley Conservation Area and the Borer's Falls Conservation Area with the resulting large natural heritage area which contains trails and passive recreation opportunities. This area is also part of the Cootes to Escarpment EcoPark System (Section 4.2.6) which is a group of nine land owning agencies that have agreed to establish the EcoPark System as a voluntary collaboration. Collectively, the aim is to effectively manage the lands through restoration and naturalization projects, increasing landholdings and passive use of the area and its trail network.

4.2.4 McMaster Forest

McMaster Forest is a 127-acre parcel of lands owned and maintained by McMaster University. It is located on Lower Lions Club Road and is located immediately adjacent to HCA lands that comprise the Dundas valley Conservation Area. McMaster Forest is an environmental significant area that is used for ecological teaching and research and for recreation purposes. "McMaster Forest Nature Preserve is an incredibly biodiverse area of mixed forests, old growth forests, wetlands, meadows, creeks, and prairie. The proximity to campus, combined with the incredible diversity of animal and plant species thriving on the property, make the McMaster Forest Nature Preserve an ideal research, recreation, and teaching facility. Many undergraduate courses make use of the property as well as undergraduate and graduate

research projects. The public is welcome to explore the area, but is asked to please adhere to posted signage, stay on trail, and not disturb ongoing research.” (<https://nature.mcmaster.ca/mcmaster-forest/about/>).

4.2.5 Trail System

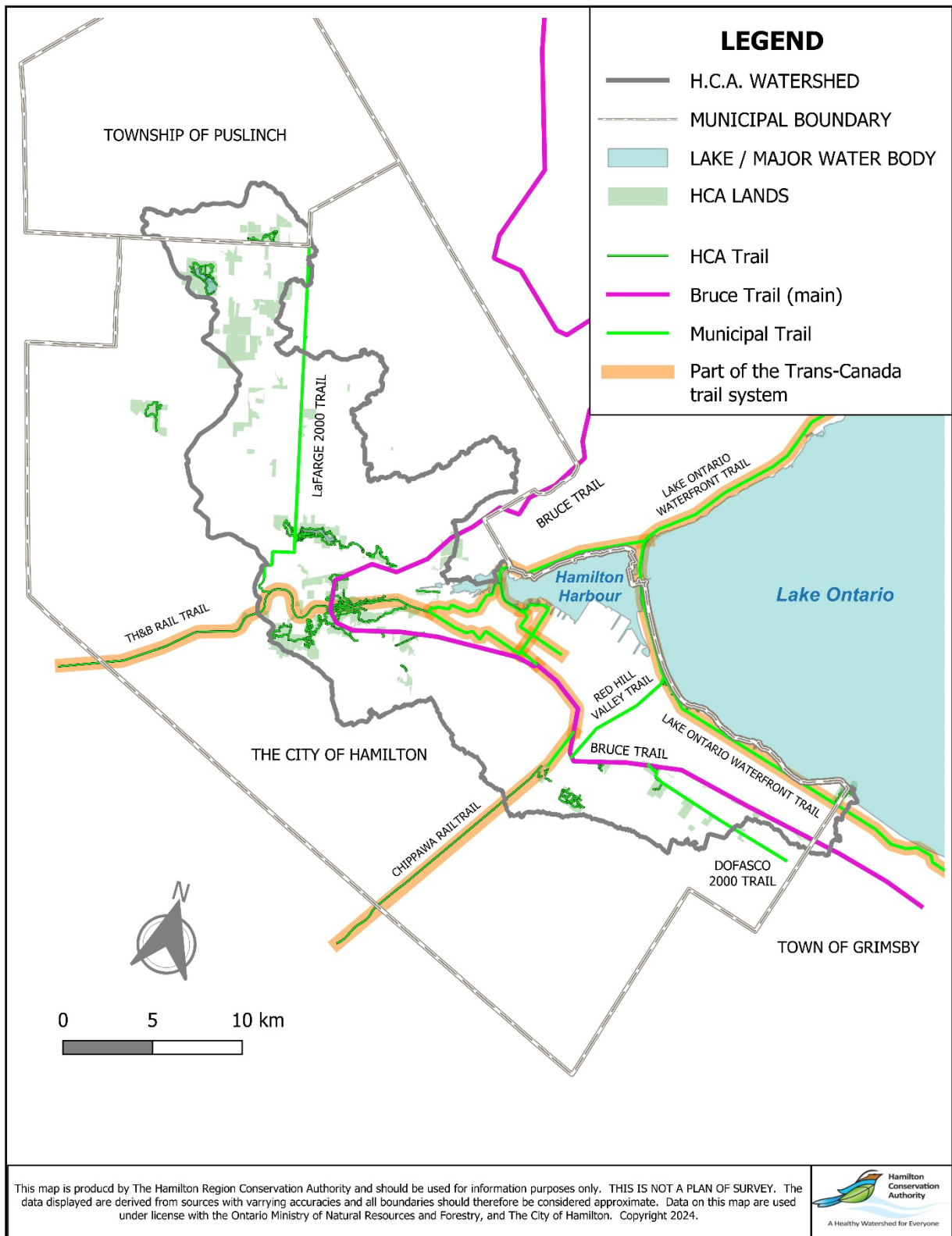
There is a significant trail system within the HCA’s watershed as well as the broader municipal community. At the provincial level, the Bruce Trail, which is administered by the Bruce Trail Conservancy is a 725 km trail that connects Queenston in the Niagara Region to Tobermory on the Bruce Peninsula. The Bruce Trail follows the Niagara Escarpment along its length and in the HCA’s watershed, the trail is located on private and public lands with sections of the trail located on HCA lands. Further, the Bruce Trail does connect via side trails to other trail systems within the HCA’s watershed including HCA trails, specifically in the Dundas Valley Conservation Area.

The Great Lakes Waterfront Trail is a provincial scale trail network that also encompasses portions of the Trans-Canada Trail. The trail system generally follows the shorelines of the St. Lawrence River, Lake Ontario, the Niagara River, Lake Erie, Lake St. Clair, the Detroit River and the St. Clair River, Lake Huron and Georgian Bay. Within the HCA’s watershed, the Great Lakes Waterfront Trail is located along the Lake Ontario Shoreline connecting the Niagara Region to the Greater Toronto Area to the north and east. The trail passes the Fifty Point Conservation Area which is owned by the HCA as well as Confederation Beach Park which is owned by the City of Hamilton and managed by the HCA.

The City of Hamilton owns and maintains an extensive trail system within their boundaries. These trails range from local neighbourhood trails to a more city scale trail network which in certain areas, connects the City’s trail network to the above noted Great Lakes Waterfront Trail and the Bruce Trail. Examples of these trail connections are the Hamilton Harbour Waterfront Trail, the Escarpment Rail Trail and the Red Hill Valley Recreational Trail. The above noted trails also form part of the Greenbelt Route.

4.2.6 Cootes to Escarpment EcoPark System

Cootes to Escarpment EcoPark System (C2E) is a collaborative partnership that works to preserve and enhance the natural lands owned by the partner agencies with a vision to permanently protect lands connecting Cootes Paradise with Hamilton Harbour and the Niagara Escarpment. The C2E mission is “as partners is to collaborate to preserve and enhance the natural lands we own and steward by using sustainable approaches to protect biodiversity, highlight ecosystem services, and enable responsible human connection to nature.” The partners that form C2E are Royal Botanical Gardens, City of Hamilton, Bruce Trail Conservancy, City of Burlington, Halton Region, Conservation Halton, Hamilton Naturalists Club, McMaster University and the HCA.



Map 7 – HCA Watershed Trail System

4.2.7 HCA Trails

The HCA owns and maintains approximately 147 kms of trails. Most of this trail network is located in HCA conservation areas providing opportunities for people to connect with nature and experience the watersheds natural landscapes. The HCA has four linear trails that connect the HCA's conservation areas to the broader City and Provincial trail network. The TH&B Rail Trail connects west Hamilton to Jerseyville through the Dundas Valley Conservation Area. This trail ultimately continues from Jerseyville to Brantford under the ownership of the Grand River Conservation Authority. The Chippawa Rail Trail connects the upper Red Hill Creek Valley to Caledonia. Both the TH&B Rail Trail and the Chippawa Rail Trail are part of the Trans Canada Trail network. Lastly, the LaFarge 2000 Trail and the Dofasco 2000 Trail are located on City of Hamilton road allowances but are managed by the HCA. The LaFarge 2000 Trail connects the Dundas Valley Conservation Area to Puslinch along the Middletown Road right of way while the Dofasco 2000 Trail connects the Devil's Punch Bowl and Saltfleet Conservation Areas to the 11th Road East.

Map 7 provides an overview of the trail system as noted above located within and beyond the HCA's watershed and how they integrate with HCA lands.

The above noted programs support the implementation of the objectives noted in Section 2.2, specifically the following objectives:

- a. To ensure that all present and future HCA land holdings contribute to the vision and mandate of the HCA, and support an integrated watershed management approach;*
- b. To protect and enhance the ecological integrity of the lands within the HCA's watershed and maintain and enhance a connected natural heritage system*
- c. To provide environmentally sustainable passive and active recreation opportunities, as appropriate, within the HCA's conservation areas;*
- d. To maintain, enhance and build new partnerships to enhance connectivity of natural heritage lands and trail networks where possible.*

5.0 Conservation Land Use Categories

Section 10 (1) 4. of Ontario Regulation 686/21 requires "The establishment of land use categories for the purpose of classifying lands in the land inventory described in Section 11 based on the types of activities that are engaged in on each parcel of land or other matters of significance related to the parcel." In this regard, the Conservation Area Strategy will identify land use categories and these categories will be used to classify HCA lands in the Land Inventory as required in Section 11 of Ontario Regulation 686/21.

Through Conservation Ontario's document titled "Guidance on the Conservation Authority Mandatory Conservation Area Strategy", dated January 9, 2022, four high-level land use

categories were proposed for use by all conservation authorities. The guidance document “recognizes that CAs lands may host a variety of activities which warrant different classifications for a single parcel (e.g., a conservation area which hosts passive recreation trails as well as protected management areas).” The guidance document recommends that “CAs are encouraged to apply one of the following four primary land use categories, and where necessary, apply subsequent secondary and/or tertiary categories as appropriate.”

1. Conservation Areas (Active Recreation, Accessible to the Public)
2. Conservation Areas (Passive Recreation, Accessible to the Public)
3. Management Areas (Public Accessibility Varies) (e.g., Natural Heritage Lands, Natural Hazard Lands, Water Management Areas, Forest Management Lands, Environmentally Sensitive Lands, etc.)
4. Conservation Authority Administration Areas

The HCA has considered this recommended approach and the Conservation Area Strategy will implement this land use classification, however, the Conservation Authority Administration Areas classification will not be used as the HCA’s main office area is part of the larger Dundas Valley Conservation Area and the primary use of those lands is conservation. The following provides an overview of the HCA land use classifications and how they will be applied to the Land Inventory.

In implementing the Land Use Categories, it is highlighted that the overarching intent for management of the lands owned and managed by the HCA is to ensure the conservation of the natural heritage and natural hazard features and functions found on these lands. Other uses should ultimately be complimentary to this overarching purpose and not negatively impact on these features.

1. Conservation Areas (Active Recreation, Accessible to the Public)

In addition to the natural heritage and natural hazard features and functions in these areas, this land use category would also include such uses as camping, roofed accommodation, marina, picnic pavilions, active day use areas such as beaches, trails and open space areas. This land use category would apply to the following HCA owned and managed lands – Fifty Point Conservation Area, Confederation Beach Park, Christie Lake Conservation Area, Valens Lake Conservation Area and Westfield Heritage Village Conservation Area. As it relates to Valens Lake and Christie Lake Conservation Areas, this would include operation and maintenance of the dam structures located on site.

2. Conservation Areas (Passive Recreation, Accessible to the Public)

In addition to the natural heritage and natural hazard features and functions in these areas, this land use category would also include such uses as walking, hiking, cycling, nature interpretation and outdoor education and hunting on designated lands per

Provincial Regulations. These lands contain significant natural heritage and physical landforms, and in some cases cultural heritage features. The intent with this land use category is to conserve the natural heritage and natural hazard features found on site while connecting people to nature and to instill a conservation ethic in conservation area visitors and the broader public. This land use category would apply to the following HCA owned and managed lands – Devil’s Punch Bowl Conservation Area, Saltfleet Conservation Area, Eramosa Karst Conservation Area, Felker’s Falls Conservation Area, Mount Albion Conservation Area, Iroquoia Heights Conservation Area, Meadowlands Conservation Area, Dundas Valley Conservation Area, Borer’s falls Conservation Area, Spencer Gorge Conservation Area and Crooks Hollow Conservation Area.

3. Conservation Areas (Management Lands)

The primary land use on these lands is natural heritage and natural hazard conservation. These lands are larger or more isolated parcels that have limited facilities and access and, in most cases, do not experience large visitation numbers. There may be HCA maintained trails, limited trails or a through trail such as the Bruce Trail that is not part of an existing HCA trail located on these lands. This land use category would apply to the following HCA owned and managed lands – Vinemount Swamp Conservation Area, Winona Conservation Area, Beverly Swamp Conservation Area, Hayesland Wetland, Westover Wetland and Fletcher Creek Ecological Preserve.

It is noted that while the above noted land use classifications will be applied to the conservation areas as noted, in some cases, the Conservation Areas (Management Lands) may be applied to certain isolated lands within the conservation areas that have no or limited public access. This would be applicable to certain lands within the Christie Lake Conservation Area, Dundas Valley Conservation Area and the Borer’s Falls Conservation Area.

As noted in Section 4.1, the HCA has historically undertaken master plans for HCA conservation areas. More recently, the HCA has undertaken a program to update conservation area master plans and management plans with Fifty Point Conservation Area, Valens Lake Conservation Area, Westfield Heritage Village Conservation Area, Fletcher Creek, Beverly Swamp, Dofasco 2000, Saltfleet, Winona and Vinemount plans completed. Work on the remaining plans is underway. As part of the development of the plans, the HCA has approached this process with the mind-set that a conservation area in the HCA portfolio requiring Master Plans or updates to Master Plans will follow a consistent methodology. Although not all 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 are utilized in the preparation of master plans and management plans. Through this process, the land uses as envisioned within this Conservation Area Strategy will be further refined using the park zoning approach including permitted uses within each zone. Existing current master plans and management plans can be

viewed at the HCA website and opportunities will be available for public and stakeholder engagement as future plans are developed.

6.0 Public Engagement

Public engagement for the Conservation Area Strategy was undertaken in two phases. The first phase involved posting information regarding the development of the strategy and the associated regulatory requirements of Ontario Regulation 686/21 on the HCA's dedicated website for the Conservation Area Strategy and the public consultation webpage "Bang the Table". Further, the process and intent of the Conservation Area Strategy was reviewed at a high level in meetings with the Mississauga of the Credit First Nation and the Six Nations of the Grand River First Nation.

The second phase of the consultation process involved the circulation of the draft Conservation Area Strategy. At this stage the strategy was reviewed by the HCA's Conservation Advisory Board and the HCA's Board of Directors prior to the strategy being made available for broader consultation. The intent of the circulation of the draft strategy was to provide an overview of the regulatory requirements and how HCA staff had completed the document to incorporate these requirements.

Through the second consultation phase, no comments were received from directly engaged stakeholders. The consultation websites were visited 288 times. Limited comments were received, however, the comments received were favourable and supported the strategy with no revisions to the strategy required.

7.0 Periodic Review

Ontario Regulation 686/21 requires a process for the periodic review and updating of the Conservation Area Strategy including procedures to ensure stakeholders and the public are consulted during the review and update process. In this regard, the Conservation Area Strategy should be reviewed within a year after the appointment of a new Board of Directors for the HCA. This timing allows for consideration of environmental, social and economic impacts while also aligning with the municipal election cycle in Ontario. A review can also be undertaken within the four-year period noted to address significant issues if they arise.

Stakeholder and public consultation will be undertaken during the above noted review periods to ensure awareness and transparency regarding the Conservation Area Strategy.

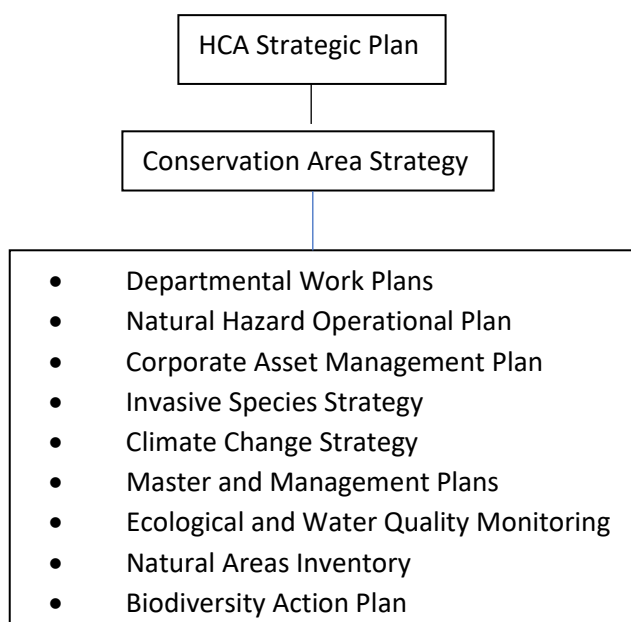
8.0 Future Considerations

The HCA is the area's largest environmental management agency and is dedicated to the conservation and enjoyment of watershed lands and natural resources. The HCA is well known for the lands under its care and stewardship. As noted, the HCA own or manages 4,732 ha

(11,695 acres) of land within our watershed jurisdiction. These lands provide critical open space and habitat for a wide range of species while providing opportunities for people to connect with nature.

Through the development and approval of the HCA's Inventory of Programs and Services, Agreement for Services with the City of Hamilton and Township of Puslinch and the development of Conservation Area Strategy, specific programs and services related to the HCA's conservation lands are highlighted with source of funding noted. The HCA's programs and services and the Conservation Area Strategy comply with regulatory requirements and provide value and experiences for the City of Hamilton, Township of Puslinch, watershed residents and landowners and people from outside the watershed.

Times change, issues evolve, and new issues arise, and these changes will result in pressures related to the HCA's conservation lands as well as broader natural heritage lands. There will be opportunities as well for further land acquisition, restoration and stewardship works to enhance these HCA conservation lands and work with agencies and groups in and outside of the watershed to enhance these features. Ultimately, the HCA's Strategic Plan will provide overall guidance regarding programs and services. The Conservation Area Strategy will provide a finer level of guidance for the management and operation of HCA lands and will be updated based on HCA's overall strategic priorities to address these changes, opportunities and effectiveness of programs as required. Lastly, issue specific strategies and plans will be maintained based on the HCA Strategic Plan and Conservation Area Strategy to provide a greater level of direction and guidance related to these specific issues. The following highlights the hierarchy of this approach.



HCA's successes since 1958 are the result of diligent Board of Director and staff commitment to conserving and restoring the HCA watershed. These efforts have included effective partnerships with governments and agencies at the federal, provincial and municipal level, local businesses, residents and landowners, conservation area visitors and groups like Friends of Eramosa Karst and Friends of Westfield. Moving forward, these relationships and partnerships will need to continue and be enhanced with a focus on greater consultation and engagement with the Mississauga of the Credit First Nation and Six Nations of the Grand River First Nation.

9.0 Resources

Conservation Authorities Act - <https://www.ontario.ca/laws/statute/90c27>

Ontario Regulation 686/21 - <https://www.ontario.ca/laws/regulation/210686>

HCA Strategic Plan 2025-2029

HCA Inventory of Programs & Services - https://conservationhamilton.ca/wp-content/uploads/2023/03/HCA-Inventory-of-Programs-and-Services_Board-Approved-Amendment_23Mar2.pdf

Section C.2.0, City of Hamilton Rural Official Plan - <https://www.hamilton.ca/sites/default/files/2022-07/rhop-volume1-chapterc-citywidesystemsanddesignations-nov2021.pdf>

Niagara Escarpment Plan - https://files.ontario.ca/appendix_-_niagara_escarpment_plan_2017_-_oc-10262017.pdf

Greenbelt Plan - <https://files.ontario.ca/greenbelt-plan-2017-en.pdf>

Canadian Protected and Conserved Areas Database - <https://www.canada.ca/en/environment-climate-change/services/national-wildlife-areas/protected-conserved-areas-database.html>

HCA Master and Management Plans - <https://conservationhamilton.ca/hca-master-plans/>

City of Hamilton Trail Listing - <https://www.hamilton.ca/things-do/parks-green-space/parks-trails/trails-listing>

Royal Botanical Gardens - <https://www.rbg.ca/gardens-trails/by-attraction/trails/>

Bruce Trail Conservancy - <https://brucetrail.org/>

Great Lakes Waterfront Trail - <https://waterfronttrail.org/>

Mississauga of the Credit First Nation - <https://mncfn.ca/>

Six Nations of the Grand River First Nation - <https://www.sixnations.ca/>

McMaster Forest - <https://nature.mcmaster.ca/mcmaster-forest/about/>

Cootes to Escarpment EcoPark System - <https://cootestoescarpmentpark.ca/>

Report

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Management Services

MEETING DATE: October 10, 2024

RE: HCA Watershed-based Resource Management Strategy pursuant to Ontario Regulation 686/21

STAFF RECOMMENDATION

THAT the Conservation Advisory Board recommends to the Board of Directors:

THAT the Watershed-based Resource Management Strategy (2024) be approved.

BACKGROUND & PURPOSE

Section 21.1 of the Conservation Authorities Act sets out Mandatory Programs and Services that all conservation authorities must deliver within their watershed, with these requirements outlined in greater detail in Ontario Regulation 686/21. Section 21.1.1 of the CA Act details Municipal Programs and Services that conservation authorities are permitted to provide under agreement to their municipal partners while Section 21.1.2 provides direction related to Other Programs and Services conservation authorities may deliver. Ontario Regulation 686/21, specifically, subsection 12(1), paragraph 3 outlines that all conservation authorities must complete a Watershed-based Resource Management Strategy. The Watershed-based Resource Management Strategy is required by regulation to be completed on or before December 31, 2024.

The attached Watershed-based Resource Management Strategy was undertaken by the Hamilton Region Conservation Authority (HCA) to meet requirements as outlined in the Conservation Authorities Act and Ontario Regulation 686/21.

The purpose of this report is to provide the final version of the Watershed-based Resource Management Strategy for approval.

STAFF COMMENT

Ontario Regulation 686/21

Ontario Regulation 686/21 requires that a Watershed-based Resource Management Strategy include the following components.

1. Guiding principles and objectives that inform the design and delivery of the programs and services that the authority is required to provide under section 21.1 of the Act.
2. A summary of existing technical studies, monitoring programs and other information on the natural resources the authority relies on within its area of jurisdiction or in specific watersheds that directly informs and supports the delivery of programs and services under section 21.1 of the Act.
3. A review of the authority's programs and services provided under section 21.1 of the Act for the purposes of,
 - i. determining if the programs and services comply with the regulations made under clause 40 (1) (b) of the Act,
 - ii. identifying and analyzing issues and risks that limit the effectiveness of the delivery of these programs and services, and
 - iii. identifying actions to address the issues and mitigate the risks identified by the review, and providing a cost estimate for the implementation of those actions.
4. A process for the periodic review and updating of the watershed-based resource management strategy by the authority that includes procedures to ensure stakeholders and the public are consulted during the review and update process.

The HCA Watershed-based Resource Management Strategy fulfills the requirements of Ontario Regulation 686/21 and will provide HCA with guidance regarding continued programs and projects and the development and implementation of resource management programs on a watershed basis.

Consultation

Consultation for the Watershed-based Resource Management Strategy was undertaken in two phases. The first phase involved posting information regarding the development of the strategy on the HCA's dedicated website for the Watershed-based Resource Management Strategy and reviewing the process and intent of Watershed-based Resource Management Strategy with the Mississauga of the Credit First Nation and the Six Nations of the Grand River First Nation.

The second phase of the consultation process involved the circulation of the draft Watershed-based Resource Management Strategy for broader consultation.

Through the second consultation phase, the consultation websites were visited 200 times, however, no public comments were provided. Through direct stakeholder engagement, comments were received from Royal Botanical Gardens and the City of Hamilton. The comments were incorporated into the strategy as appropriate to provide further details related to the Watershed Characterization section and did not result in substantive changes to the overall strategy.

AGENCY COMMENTS

N/A

LEGAL/FINANCIAL IMPLICATIONS

Ontario Regulation 686/21, specifically, subsection 12(1), paragraph 3 outlines that all conservation authorities must complete a Watershed-based Resource Management Strategy. The Watershed-based Resource Management Strategy is required by regulation to be completed on or before December 31, 2024. Staff time required to complete the strategy was allocated from within the existing operating budget for 2024.

CONCLUSIONS

The Watershed-based Resource Management Strategy has been prepared to meet the requirements of Ontario Regulation 686/21 and to provide guidance regarding continued programs and projects and the development and implementation of resource management programs on a watershed basis

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Hamilton Conservation Authority

Watershed-based Resource Management Strategy

2024



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1.0 Introduction

1.1 Purpose and Regulatory Framework

The Watershed-based Resource Management Strategy (WbRMS) was undertaken by the Hamilton Region Conservation Authority (HCA) to meet requirements as outlined in the [Conservation Authorities Act](#) (CA Act) and [Ontario Regulation 686/21](#) (Regulation). The WbRMS will provide HCA with guidance regarding continued programs and projects and the development and implementation of resource management programs on a watershed basis.

Section 21.1 of the CA Act sets out Mandatory Programs and Services that all conservation authorities must deliver within their watershed, with these requirements outlined in greater detail in the Regulation. Section 21.1.1 of the CA Act details Municipal Programs and Services that conservation authorities are permitted to provide under agreement to their municipal

1. Guiding principles and objectives that inform the design and delivery of the programs and services that the authority is required to provide under section 21.1 of the Act.
2. A summary of existing technical studies, monitoring programs and other information on the natural resources the authority relies on within its area of jurisdiction or in specific watersheds that directly informs and supports the delivery of programs and services under section 21.1 of the Act.
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 - iii. identifying actions to address the issues and mitigate the risks identified by the review, and providing a cost estimate for the implementation of those actions.
4. A process for the periodic review and updating of the watershed-based resource management strategy by the authority that includes procedures to ensure stakeholders and the public are consulted during the review and update process.

Figure 1 - Main Requirements

partners while Section 21.1.2 provides direction related to Other Programs and Services conservation authorities may deliver. The Regulation, specifically, subsection 12(1), paragraph 3 outlines that all conservation authorities must complete a WbRMS. The main requirements of the WbRMS per Section 12(4) of Ontario Regulation 686/21 are outlined in Figure 1.

1.2 The Hamilton Conservation Authority

The Spencer Creek Conservation Authority, the forerunner of the HCA, was created in 1958. Subsequently, Red Hill Creek, Stoney Creek, Battlefield Creek and the Numbered watercourse in the former City of Stoney Creek and City of Hamilton were added and the Hamilton Region Conservation Authority (HCA) was formed in 1966 pursuant to the CA Act. The HCA is located at the western end of Lake Ontario and has a watershed area of 479km². The HCA watershed is in the Treaty Lands and Territory of the Mississaugas of the Credit First Nation and traditional territory of the Haudenosaunee. The majority of the HCA's watershed is included within the City of Hamilton with the headwaters of Spencer Creek and Fletcher Creek located in the Township of Puslinch. A small portion of the Town of Grimsby is located at the east end of the HCA's watershed.

The HCA operates under the requirements of the CA Act. Section 0.1 of the CA Act states that:

“The purpose of this Act is to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario.”

The Board of Directors of the HCA is comprised of 11 Directors representing 2 municipalities. Seven Councillors and 3 citizen appointees represent the City of Hamilton while 1 appointee represents the Township of Puslinch. The HCA works closely with our municipal partners as well as local groups and agencies and both the Federal and Provincial governments.

2.0 **Strategic Direction**

HCA's Strategic Plan 2025-2029 details the HCA's vision, mission, values as well as our strategic priorities.

HCA's vision is “A healthy watershed for everyone”.

HCA's mission is “To lead in the conservation of our watershed and connect people to nature.”

The Strategic Plan highlights the HCA's values as follows:

- **Collaboration** - We foster relationships and teamwork internally and externally for collective success.
- **Customer Service** - We deliver excellent service that builds trust.
- **Integrity** - We uphold honesty, professionalism and ethics in all actions and decisions.
- **Respect** - We recognize and value diverse perspectives and work to understand and protect our changing environment.
- **Innovation** - We encourage creativity and embrace new ideas and technology to drive progress.

The HCA's Strategic Plan highlighted 4 Priority Areas.

- Water Resource Management
- Organizational Excellence
- Natural Heritage Conservation
- Connecting people to Nature

For each Priority Area, several initiatives are included, and these priority areas and associated initiatives guide programs and services and the development of department work plans, budgets and approaches.

2.2 Watershed-based Resource Management Guiding Principles

Section 12(4) of Ontario Regulation 686/21 notes that a WbRMS shall include “Guiding principles and objectives that inform the design and delivery of the programs and services that the authority is required to provide under section 21.1 of the Act”.

Through a review of background documentation and input through the consultation process, the following guiding principles have been developed to meet the requirements of the CA Act and Ontario Regulation 686/21 and to inform the design and delivery of HCA’s programs and services.

- The conservation, restoration, development, and management of natural resources is best implemented on a watershed basis.
- Water and other natural resources are vital natural assets, which provide critical functions and services such as buffering the impacts of climate change, mitigate natural hazards, filter contaminants, assimilate waste, sustain biodiversity, and provide green spaces for recreation, among other community benefits.
- The management of water and other natural resources is a shared responsibility among Conservation Authorities, Municipalities, government agencies, First Nations, the public and other stakeholders.
- Resource management decisions are integrated and transparent and take into consideration a broad range of community uses, needs, and values, including ecosystem needs.
- Understanding existing and emerging issues by engaging, collaborating and being transparent builds solid relationships and partnerships for strong watershed ideas, actions and outcomes.
- Safe drinking water is expected by our watershed residents.

- Conservation lands are critical for the maintenance of natural heritage features and landscapes and the health of communities. They provide environmental, economic, social, mental and physical health benefits.
- The majority of the HCA's watershed is privately owned. Stewardship of these lands is critical to the health of the watershed now and in the future.

2.3 Watershed-based Resource Management Objectives

The HCA's strategic plan highlights 45 strategic priority areas with associated initiatives. These priority areas and initiatives guide the delivery of programs and services with associated budget allocations.

- Water Resource Management
- Organizational Excellence
- Natural Heritage Conservation
- Connecting people to Nature

Flowing from this direction and the principles identified above, the following objectives have been developed.

- To avoid, reduce or mitigate potential risk to public health and safety, and to property damage from flooding and other natural hazards and the impacts of a changing climate.
- To work with Conservation Halton and the City of Hamilton to mitigate potential risk to drinking water sources and ensure a sustainable and clean water supply for the watershed community.
- To characterize groundwater and surface water resource systems, aquatic and terrestrial resources, which regulate natural hazard processes, provide drinking water sources and healthy ecosystems, while supporting the hydrological and ecological integrity of the watershed.
- To protect and maintain Conservation Authority owned lands for public safety, natural heritage protection, outdoor recreation, and socio-economic health.
- To identify and understand key resource issues and the primary stressors that cause them.
- To research and identify potential solutions for addressing key resource issues and adapting/developing programs and services as required.

- To educate and engage the watershed community to promote awareness of natural hazards and watershed health, and to encourage the protection and restoration of land and water resources through stewardship action.

The above noted principles and objectives will help guide the implementation of HCA programs and services and the development of policy and plan documents.

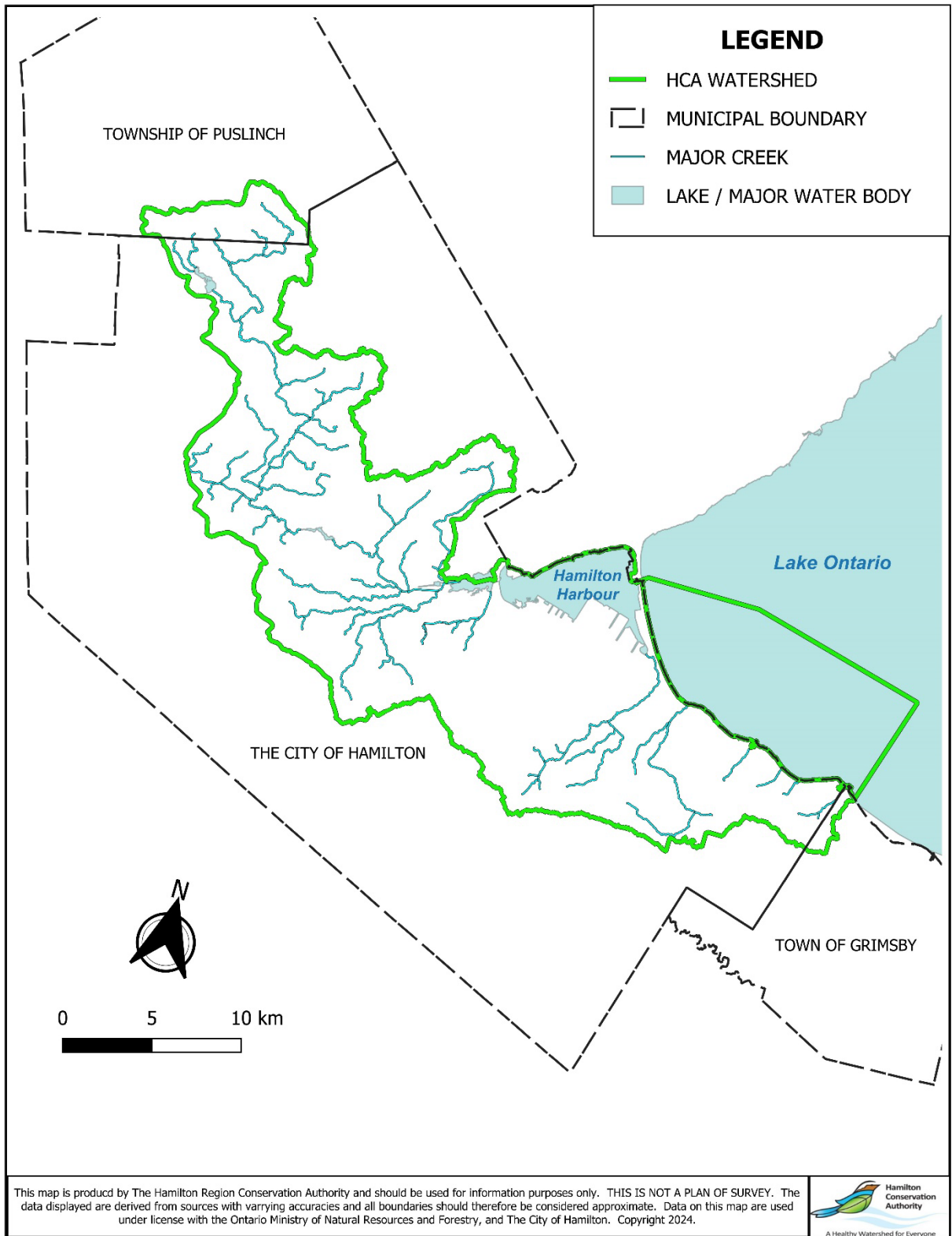
3.0 Watershed Characterization

The HCA is located at the western end of Lake Ontario within the Treaty Lands and Territory of the Mississaugas of the Credit First Nation and traditional territory of the Haudenosaunee. The HCA has a watershed area of 479km² and reaches from Fifty Point and the west limit of the Town of Grimsby, across the City of Hamilton, to the Township of Puslinch in Wellington County. HCA's jurisdictional area includes the major watersheds of Spencer Creek, Borers Creek, Chedoke Creek, Redhill Creek, Stoney Creek, Battlefield Creek and the Stoney Creek Number Watercourses, as well as portions of the Hamilton Harbour and Lake Ontario shoreline (Map 1).

The 1960 Spencer Creek Conservation Report and the 1968 Hamilton Conservation Report describes the HCA's watershed. Further, watershed characterization and assessment work were completed for the Halton-Hamilton Source Water Protection Area which includes the HCA's watershed. The following highlights background information as it relates to the HCA watershed.

3.1 Physical Geography

The present-day landscape of the HCA watershed and surrounding Great Lakes region is primarily the result of glacial activity that took place in the Late Wisconsinan period, which ended about 10,000 years ago. The advancement and retreat of major ice sheets during this period has helped to shape the landscape that exists today. Glacier advancement resulted in erosion of the bedrock, and the movement and mixing of eroded rock and soil (known as till). Further scouring and smoothing of bedrock surfaces occurred during deglaciation, leaving behind large amounts of rock, sand, silt, and clay debris that was carried in the ice. Glacial meltwater flowed through channels, eroding the underlying bedrock, also depositing significant amounts of sand and gravel on the landscape, and filling depressions in the surface to form ponds. This period of activity resulted in the formation of a number of distinct physiographic regions and features in southern Ontario, a number of which are represented in the watershed today. This includes escarpment, moraines, beaches, and sand, clay shale and limestone plains.



Map 1 – HCA Watershed

The Niagara Escarpment is the most prominent physiographic feature in the watershed, running throughout the east and central portions of the watershed, generally paralleling the Lake Ontario shoreline. The escarpment has formed over millions of years, and is the result of differential erosion, where softer, older, rock has eroded away, leaving behind a ridge of more erosion resistant harder dolostone rock. The Niagara Escarpment creates two separate watershed areas; the lands above the escarpment which are generally flat and the lands below the escarpment with the associated steep gradients.

The Dundas Valley and Red Hill Valley are two other prominent landscape features within the watershed. These ancient river valleys, also referred to as re-entrant valleys, formed prior to the last glaciation, when flowing water cut channels through the escarpment bedrock and into the lower softer shale formations below. The Dundas Valley is thought to have formed part of a larger pre-glacial drainage system that extended to Lake Huron, with its eastern end now located deep beneath Cootes Paradise and Hamilton Harbour. During the last glacial period the valley was further eroded and infilled with sediment, and today extends from Copetown to Cootes Paradise, and is up to 4km wide in places. The Red Hill Valley re-entrant extends about eight kilometres between the Niagara Escarpment and Lake Ontario. Portions of the valley below the escarpment have been completely filled with sediment deposited from glacial activity. The valley today is comprised of a natural corridor and the Red Hill Valley Parkway. The re-aligned Red Hill Creek currently flows through the valley from waterfalls at the escarpment edge to Windemere Basin adjacent to the Hamilton Harbour.

The Iroquois Plain, extending from the base of the Niagara Escarpment to Hamilton Harbour and Lake Ontario, marks the area of glacial Lake Iroquois and is comprised of fine silty sands that occupied the former lake bottom. Former beaches of Lake Iroquois now form barrier bars which separates Hamilton Harbour from Lake Ontario and the Hamilton Barrier Bar which separates Cootes Paradise from Hamilton Harbour.

3.2 Climate

Climate varies significantly within the HCA's watershed. The average annual temperature in the region is 9 degrees Celsius. Climate records indicate a decreasing trend in precipitation as one moves from the northwest to the southeast through the watershed. Annual average precipitation rates range from approximately 950 mm/year in the northwest to 850 mm/year in the southeast (LIO 2008). The topographic change associated with the Niagara Escarpment plays a large role in this trend, with climate stations above the Escarpment receiving significantly higher amounts of precipitation than climate stations located below the Escarpment. Evapotranspiration estimates for Spencer Creek range from 500 to 600 mm/year (MNR 1984), with higher evapotranspiration rates seen in the northern part of the watershed above the Escarpment.

3.3 Surface Water

The HCA's watershed can be divided into two areas.

Four watersheds flow into Cootes Paradise and Hamilton Harbour and ultimately into Lake Ontario:

1. Spencer Creek
2. Chedoke Creek
3. Borer's Creek
4. Red Hill Creek

Beverly Swamp, which is a provincially significant wetland located in the Spencer Creek watershed is a significant feature on the landscape and as it relates to surface and groundwater flows and retention.

Three watersheds flow directly into Lake Ontario:

1. Stoney Creek
2. Battlefield Creek
3. Numbered Stoney Creek Watercourses

Lake Ontario and Hamilton Harbour are the largest lakes within the watershed. Cootes Paradise, which drains into Hamilton Harbour, is a large coastal wetland that is fed by Spencer Creek, Chedoke Creek and Borer's Creek. Valens Lake and Christie Lake are reservoirs located on Spencer Creek and have an area of 74.9 hectares and 71.2 hectares respectively for summer storage.

3.4 Groundwater

Within the HCA Watershed, the lowest elevation toward which groundwater is moving is Lake Ontario. The Dundas Valley has a significant influence on groundwater flow direction. As such, northwest of the Dundas Valley, groundwater flow direction is primarily toward the valley to the southeast. The Provincial Groundwater Monitoring Network data indicate stable or increasing groundwater levels since monitoring began in about 2002. It also indicates seasonal fluctuations varying between 0.5 and 2 metres. Seasonal low values typically occur in September. Groundwater flows at a greater rate through the more permeable areas of the dolostone bedrock above the escarpment. The bottom of the upper dolostone formations is at a higher elevation than the bedrock surface below the escarpment. The dolostone is underlain by the Cabot Head aquitard, which limits the vertical movement of groundwater through the rock. Therefore, groundwater moves laterally and seeps from the escarpment face, or water moves through the rock debris at the edge of the escarpment to the base of the slope. Some watercourses are supported by this groundwater discharge. Below the escarpment, water moves through the surface soils and the weathered zone of the underlying shale of the Queenston Formation. The Dundas and Red Hill Valleys influence this flow. Groundwater discharges into the Dundas Valley support cold and cool water fisheries habitat in many

reaches. Local impacts on groundwater levels occur in the vicinity of pumping wells, particularly those pumping large volumes of water for many hours each day. These wells include municipal water wells and quarries that are dewatering.

3.5 Flooding and Erosion

Flooding is a natural process that takes place within the HCA watershed, specifically along Spencer Creek in Dundas, Stoney and Battlefield Creeks in Stoney Creek, the Red Hill Creek in Hamilton and sections of the Lake Ontario shoreline. Flooding events and periods of high water can result in increased streambank erosion associated with watercourses on the Niagara Escarpment and shoreline erosion and potential impact to life and property. Floods can occur at any time of the year and are caused by heavy rainfall, rapid melting of snow pack or ice jams, and, in the case of the Lake Ontario, winds and wave action. Due to climate change, flooding has shifted to include the summer months with intense rain events. For the Lake Ontario shoreline, the potential for flooding and erosion is greater in the fall and spring due to high winds from the east. HCA's watercourses experience flooding mainly in the spring from snowmelt and frazil ice formation in lower Spencer Creek.

3.6 Water Control Structures

The water control and erosion control structures that HCA operates are the Christie Lake Dam, Valens Lake Dam, Mineral Springs Detention Reservoir, and Saltfleet Conservation Area Wetlands (BC-1). Christie Lake Dam and Valens Lake Dam are located on Spencer Creek, while Mineral Springs Detention Reservoir is located on Sulphur Creek. The Saltfleet Conservation Area Wetlands (BC-1) are located on Battlefield Creek. The primary goal of these water control structures is to provide flood control for the downstream watershed areas. The Christie Lake Dam and Saltfleet Conservation Area Wetlands (BC-1) also provide some benefit for low flow augmentation. In addition to this, Christie Lake Dam, Valens Lake Dam and the Saltfleet Conservation Area Wetlands are within HCA owned conservation areas, and provide natural habitat enhancements and recreational opportunities for the public.

3.7 Drought/Low Flow

Drought conditions in the HCA watershed are weather dependent and are cyclical in nature. Spencer Creek, Red Hill Creek, Stoney and Battlefield Creeks and the Numbered Watercourses in Stoney Creek are more susceptible with occurrences of these watercourses running dry during drought conditions. The Hamilton Low Water Response Team comprises of water users in the watershed, including agricultural representatives, golf courses, nursery operators, quarry operations, industrial users, and provincial and municipal representatives. HCA staff act as co-chair for this team and are responsible for regularly evaluating watershed conditions, which provides evidence to support declaring low water conditions.

3.8 Natural Heritage

The HCA watershed contains a diverse natural heritage system that includes forests, wetlands, prairies, riverine systems, the Niagara Escarpment, Cootes Paradise, Hamilton Harbour and the Lake Ontario shoreline. Through the Natural Areas Inventory project over 100 areas within the City of Hamilton have been identified for their environmental significance with a number of these areas being designated as environmentally significant areas in the City of Hamilton Official Plans and County of Wellington Official Plan. A number of HCA conservation areas such as the Dundas Valley, Niagara Escarpment lands, Beverly Swamp, Fletcher Creek, Valens Lake, Christie Lake and the Spencer Gorge are located within these environmentally significant lands. The HCA watershed is also located within the Carolinian Canada zone which includes a variety of species found more typically in more southerly areas. These species are in addition to species more broadly found within Ontario.

3.9 Land Use

The HCA's watershed can be divided into two halves, the east area and the west area. The east area would include the Hamilton urban area, Stoney Creek urban area, the Ancaster and Dundas urbans area and Waterdown. Historically and to present day, the bulk of development has occurred in this area and has resulted in a generally continuous urban area. These areas contain predominately residential, commercial and industrial uses. The lands located above the Niagara Escarpment in Stoney Creek and Glanbrook are a mix of residential and agricultural uses. Large natural areas such as the Niagara Escarpment, Cootes Paradise and the Dundas Valley are located within the east area of the watershed.

The west area of the watershed includes Flamborough and the Township of Puslinch. This area is predominately rural in nature with a mix of agricultural and residential uses. There are two quarries in this area. Forests and wetlands occupy a significant portion of the west area with the Beverly Swamp, Hayesland Swamp, Fletcher Creek Swamp Forest and Spencer Creek the main natural areas. Spencer Creek flows through Dundas with development located immediately adjacent to the watercourse. Flooding is an issue in these area with Special Policy Areas and associated policy in place to guide development.

The population of the City of Hamilton is 569,353 (2021 Census) and is projected to be 820,000 by 2051 based on forecasts provided in the Growth Plan for the Greater Golden Horseshoe (2019, as amended in 2020).

There are no First Nations reserves located within the HCA's watershed. However, the Mississaugas of the Credit First Nation and Six Nations of the Grand River First Nation are located west of the HCA watershed area. The HCA's watershed is part of the Treaty Lands and Territory of the Mississaugas of the Credit First Nation and traditional territory of the Haudenosaunee.

3.10 Infrastructure

There are 2 municipal drinking water systems within the HCA watershed, one Lake Ontario and one well-based system. The Woodward municipal system draws water from Lake Ontario and supplies water to the urban areas of Hamilton, Dundas, Ancaster, and Waterdown. This lake system also supplies areas of Halton Region and parts of the communities of Caledonia, Cayuga, and York in Haldimand County, which are all located outside of the HCA's watershed. The municipal groundwater system supplies water to a portion of the settlement of Greensville, located just north of Dundas. There are seven non-municipal residential systems, 60 small drinking water systems that operate in the HCA's watershed. The rural areas of the HCA watershed are serviced by private water wells. The urban areas of the watershed are serviced by municipal sewage systems while rural and un-serviced areas rely on private sewage systems.

The east area of the watershed contains several provincial highways that provide connections to areas of southern and central Ontario and the United States, with Highway 5, Highway 6, Highway 403, the Queen Elizabeth Way, Lincoln Alexander Parkway, the Red Hill Expressway and Canadian Pacific and Canadian National Rail lines, 4 rail corridors in total, crossing the watershed. Additionally, there are numerous regional and local road systems in the HCA watershed.

Hamilton Harbour is a major deep-water port in the Great Lakes system. The harbour supports heavy industry and facilitates the storage and movement of a variety of commodities through water, highway and rail transportation routes.

There are a series of pipelines located throughout the watershed connecting supplies, storage and refineries across Canada and the United States. The following pipeline companies operate in the HCA watershed - Enbridge – Union Gas, Imperial Oil, Trans-Northern Pipeline, Trans Canada Pipeline and Sun Canadian.

3.11 Protected Areas

The HCA owns or manages 4,732 hectares (11,695 acres) of land which represents over 10% of the HCA's watershed area. These lands are locally, provincially and in some cases, internationally significant and include features such as forests, prairie, wetlands, watercourses, karst, Lake Ontario shoreline and the Niagara Escarpment. Other protected areas within and adjacent to the HCA watershed include lands owned by the City of Hamilton, Royal Botanical Gardens, McMaster University and the Hamilton Naturalists Club. There are no Provincial Parks or federally protected land within the HCA watershed.

4.0 Watershed Challenges

Through watershed knowledge and a review of background information, the following watershed challenges were identified that should be considered as part of the HCA's program and services delivery in the coming years.

Continued Development Pressure and Population Growth

A key challenge is current and projected growth and need for housing within the Greater Toronto Hamilton Area. With this growth, there is a priority on increasing housing to accommodate existing housing needs and the projected increase in population. Development within the designated Greenbelt Plan area will be limited to low intensity uses that maintain the intent of the respective Greenbelt Plan designations. Growth will be focussed to designated urban areas with increase pressure to develop adjacent to natural hazard and natural heritage system lands. The Urban Hamilton Official Plan, Chapter A, Policy 1.2:, indicates that by 2051, the City is expected to grow to achieve a population of 820,000 and 360,000 jobs. (November 2022: <https://www.hamilton.ca/sites/default/files/2024-05/uhop-vol1-chaptera-intro-bill150update.pdf>). This has the potential to impact overall watershed health through direct and indirect impacts to natural area features and functions as well as visitor experience and natural heritage impacts through use of conservation areas.

Climate Change

Climate change is happening and there is a need to work to mitigate and adapt to the effects. This will involve working with the City of Hamilton, Bay Area Climate Change Council, implementing the HCA's Climate Change Strategy and working with the Hamilton Low Water Response Team related to drought conditions.

Invasive Species

Invasive species are a major threat within Ontario and the HCA's watershed. These species outcompete native species and impact our watersheds natural heritage system and features. The HCA has an Invasive Species Strategy (2024). The strategy provides guidance regarding management of invasive species.

Species at Risk, Biodiversity and Habitat Loss

The loss of habitat, increased numbers of species at risk and loss of biodiversity presents a major threat to the function and health of watershed natural areas and a healthy ecosystem. The HCA has partnered with the City of Hamilton, Hamilton Naturalists Club and other agencies regarding a natural areas inventory for Hamilton. Further, working with multiple partners, the HCA is part of the Hamilton Biodiversity Action Plan, which was developed to guide collaborative actions to protect, enhance, restore and explore biodiversity across the City.

Water Quality

As detailed, water quality in the HCA watershed is a concern as it relates to urban and rural watercourses. The sources of these impacts vary, however, the impact of development, sewage cross connections, infrastructure, impervious surfaces, agricultural practices and climate change on water quality continues to be at issue.

5.0 Programs and Services

Ontario Regulation 687/21: Transition Plans and Agreements for Programs and Services detail requirements for Transition Plans and Agreements for Programs and Services. As per the CA Act and Ontario Regulation 687/21, on March 2, 2023 the HCA's Board of Directors approved the HCA's Inventory of Programs and Services. The approved Inventory of Programs and Services details HCA Mandatory Programs and Services (Category 1), Municipal Programs (Category 2) undertaken by the HCA under agreement with the partner municipality and Other Programs and Services (Category 3) the HCA undertakes. The required agreements for Category 2 and Category 3 Programs and Services was completed with the City of Hamilton and the Township of Puslinch on November 17, 2023. The costs associated for all Category 1, 2 and 3 programs and services are included in the Inventory of Programs and Services.

A summary of the programs and services is provided in the following sections. The final version of the Inventory of Programs and Services is available on the HCA website.

5.1 Natural Hazard Management

Natural hazard management is a key program area for the HCA. The priority in this regard is the protection of life and property from flooding and erosion hazards. This is a mandatory, watershed wide program that applies to the Lake Ontario and Hamilton Harbour shoreline as well as area flood plains, valley and stream systems, wetlands and hazardous lands such as karst topography.

This program includes:

- Flood forecasting and warning – HCA's flood forecasting and warning program monitors watershed conditions to provide agency and public awareness of flood conditions and to provide an early warning regarding possible flood risks. The HCA provides the City of Hamilton and the Township of Puslinch, other agencies and the public notice of potential flood events and associated issues to allow time to prepare and respond. This program involves collection and interpretation of rain and watercourse flow data, weather forecasts, watershed conditions, snow surveys, frazil ice, wind direction related to Lake Ontario, site conditions, watershed knowledge of susceptible areas, provincial forecasts. This information is utilized to provide safety notices and flood warnings and to liaise with provincial and municipal department and the public.

Municipal plan input and review and regulation – Municipal Plan Input and Review is a preventative program that aims to ensure that new development will not result in increased risks to public safety or property damage from natural hazards. HCA undertakes the municipal plan input and review program to provide advice to its member municipalities and watershed residents, both through the commenting process under the *Planning Act* and through general inquiries and pre-consultation meetings. This program includes municipal official plan related comments for City-initiated strategic updates, and proponent driven applications such as subdivisions,

condominiums, severances, official plan and zoning by-law amendments, minor variances, and site plan control.

The HCA also regulates development under Section 28 of the CA Act and Ontario Regulation 41/24, Prohibited Activities, Exemptions and Permits. The intent of the regulation is to direct new development away from natural hazards to ensure that development is not impacted by flooding and erosion and that new development does not aggravate or create new hazards or create conditions which would jeopardize health and safety of people or result in damage to property. The HCA regulates the Lake Ontario and Hamilton Harbour shorelines, dynamic beaches, watercourses, ravine and stream systems, wetlands and karst features.

- HCA Owned Flood and Erosion Control Infrastructure – HCA operates the Christie Lake Dam, Valens Lake Dam and Mineral Springs detention reservoir, and Saltfleet wetland berms (BC-1).

The Christie Lake Dam is located on Spencer Creek, upstream of Dundas within the Christie Lake Conservation Area. Constructed in 1972, the dam provides flood control and low flow augmentation. In addition, the dam reservoir provides recreational opportunities and fish habitat.

The Valens Lake Dam is located on Spencer Creek, near the community of Valens, Ontario within the Valens Conservation Area. Constructed in 1966, the dam provides recreational opportunities and fish habitat, but does also provide some flood control.

The Mineral Springs detention reservoir is located on Sulphur Creek and created as a result of the crossing at an unpaved section of Martin Road. Unlike the other three infrastructures, the Mineral Springs detention reservoir is designed to overtop Martin Road for storm events near and larger than the 10-year design storm.

The Saltfleet wetland berms (BC-1) are two separate wetland containment berms (East and West) that are located in HCA's Saltfleet Conservation Area at 444 First Road East. The BC-1 East and West wetlands are part of the larger Saltfleet wetlands system, that will include several locations along Battlefield Creek and Stoney Creek. The BC-1 East and West wetlands provide flood and erosion control as well as low flow augmentation to downstream reaches of Battlefield Creek.

- Flood plain mapping – The HCA has undertaken flood plain mapping updates for Lower Spencer Creek, the Numbered watercourses in Stoney Creek, Battlefield Creek and Stoney Creek as well as Red Hill Creek. Further flood plain mapping will be undertaken for the remaining watercourses in the urban areas of the watershed and as required in the rural areas.
- Low water response – The HCA delivers the provincial Low Water Response Program for the HCA watershed. This includes a Low Water Response Committee that consists of

municipal, agriculture, industry, business, recreation, government representatives and other decision makers from the watershed

5.2 Water Quality and Quantity Monitoring

- The HCA undertakes surface water monitoring throughout the watershed through chemical analysis as part of Ontario's Provincial Surface Water Quality Monitoring Network (PWQMN). The PWQMN water quality monitoring program is a long-standing HCA and Ministry of Environment, Conservation and Parks (MECP) partnership for stream water quality monitoring. The HCA undertakes the field work to gather the water samples at 6 sites. The samples are submitted to the MECP provincial lab for analysis and data management. The results of water sampling are available to the HCA and is used as part of the HCA's watershed report card and overall watershed health monitoring.
- The Provincial Groundwater Monitoring Network (PGMN) is a partnership with the MECP for groundwater level and water quality monitoring at 7 stations across the HCA watershed. This program is similar for all conservation authorities with HCA costs being data collection, shipping, minor equipment repairs/purchases, data management, and reporting. The MECP funded the installation of the network and continues to fund equipment replacements. The results of water sampling are available to the HCA.
- The HCA undertakes a Water Quality Monitoring Program in partnership with the City of Hamilton. This includes water quality and erosion site monitoring, City of Hamilton Groundwater Monitoring Well Inspections, City of Hamilton Groundwater Monitoring Well Water Quality Sampling, City of Hamilton E. Coli Sampling Program at PWQMN Sites and Greensville Surface Water Monitoring. The data from HCA water monitoring program as well as City programs is shared between the HCA and the City.
- As part of the Hamilton Harbour Remedial Action Plan, the HCA undertakes water quality monitoring associated with tributaries to Cootes Paradise (Spencer Creek, Chedoke Creek, Ancaster Creek and Borer's Creek). This monitoring programs identifies long term trends related to water quality and watershed health.

5.3 Source Water Protection

- HCA's watershed is within the Halton-Hamilton Source Protection Region. The Halton Region Conservation Authority (HRCA) is designated as the lead; however, the HCA and HRCA manage the program jointly with the HRCA managing the programs budget. Both the HCA and HRCA are identified as source protection authorities in the Clean Water Act, 2006. They coordinate the program and are guided by a source protection committee, and support municipalities and other involved or affected stakeholders in the Region.

5.4 Monitoring and Stewardship Programs

The Hamilton Watershed Stewardship Program (HWSP) is an HCA program that undertakes activities in three key project areas:

- Landowner Outreach – including contact and site with watershed landowners to educate and communicate the benefits of using best management practices for addressing water quality and habitat issues.
- Educational Opportunities – including the development and hosting of educational workshops and information sessions for watershed landowners.
- Water Quality and Habitat Improvement Projects – where HWSP staff work with landowners to develop and implement stewardship projects on-the-ground.

The HCA's Hamilton Watershed Stewardship Program also delivers a well decommissioning program on behalf of the City of Hamilton in HCA's watershed to assist landowners with the cost of decommissioning their abandoned water wells

The HCA undertakes terrestrial and aquatic resource monitoring programs. These are monitoring programs that takes place on HCA lands and as it relates for some sites in the aquatic program, on non-HCA lands. These overall programs are utilized by HCA, City of Hamilton and consultants and helps identify terrestrial and aquatic health on a watershed basis.

5.5 Conservation Area Lands

The Hamilton Conservation Authority own or manages 4,732 ha (11,695 acres) of land within our watershed jurisdiction. This represents over 10% of the HCA's watershed area. There is a total of 147 kilometres of trails located on HCA lands. This includes the Westfield Heritage Village Conservation Area and portions of the Chippawa Rail Trail and TH&B Rail Trail that are located outside of the HCA's watershed.

HCA lands comprise major components of the City of Hamilton's natural heritage system and are integral to the features, function and biodiversity of the natural heritage system. HCA lands play a critical role in the watershed natural heritage system as well as providing passive and active recreation lands within the watershed. HCA lands augment natural heritage features within the HCA's watershed and secure these lands for current and future generations. Further, these lands play a critical role in providing critical habitat in an increasing urban area, provides a natural land area to maintain and increase biodiversity while also mitigating the effects of climate change. Outdoor environmental education and cultural heritage education occurs on the lands, specifically the Dundas Valley Conservation Area and the Westfield Heritage Village Conservation Area.

The HCA has three conservation area classifications as defined in the Conservation Area Strategy (2024) that relate to the management and use of these lands. It is highlighted that the overarching intent for management of the lands owned and managed by the HCA is to ensure

the conservation of the natural heritage and natural hazard features and functions found on these lands. Other uses should ultimately be complimentary to this overarching purpose and not negatively impact on these features. Active and passive conservation areas generally require payment for access through an automated gate system or admission fee.

1. Conservation Areas (Active Recreation, Accessible to the Public)

This land use category would also include such uses as camping, roofed accommodation, marina, picnic pavilions, active day use areas such as beaches, trails and open space areas. This land use category would apply to the following HCA owned and managed lands – Fifty Point Conservation Area, Confederation Beach Park, Christie Lake Conservation Area, Valens Lake Conservation Area and Westfield Heritage Village Conservation Area. As it relates to Valens Lake and Christie Lake Conservation Areas, this would include operation and maintenance of the dam structures located on site.

2. Conservation Areas (Passive Recreation, Accessible to the Public)

This land use category would also include such uses as walking, hiking, cycling, nature interpretation. These lands contain significant natural heritage and physical landforms, and in some cases cultural heritage features. The intent with this land use category is to conserve the natural heritage and natural hazard features found on site while connecting people to nature and to instill a conservation ethic in conservation area visitors and the broader public. This land use category would apply to the following HCA owned and managed lands – Devil’s Punch Bowl Conservation Area, Saltfleet Conservation Area, Eramosa Karst Conservation Area, Felker’s Falls Conservation Area, Mount Albion Conservation Area, Iroquoia Heights Conservation Area, Meadowlands Conservation Area, Dundas Valley Conservation Area, Borer’s falls Conservation Area, Spencer Gorge Conservation Area and Crooks Hollow Conservation Area.

3. Conservation Areas (Management Lands)

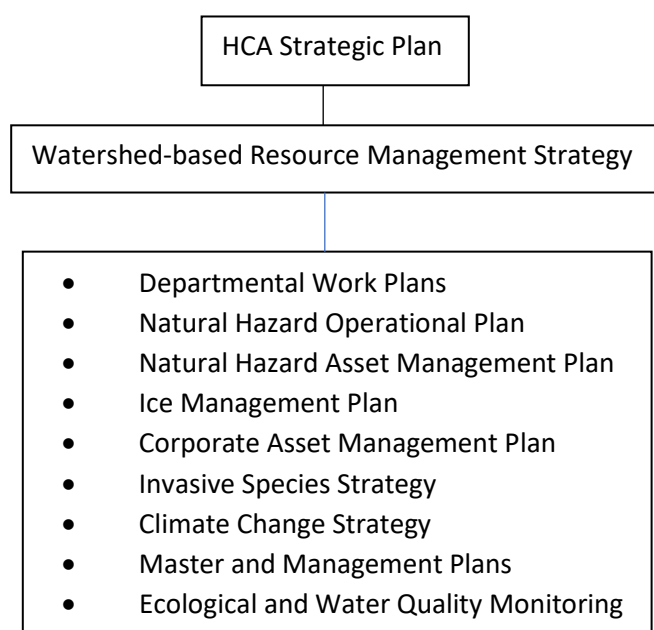
The primary land use on these lands is natural heritage and natural hazard conservation. These lands are larger or more isolated parcels that have limited facilities and access and, in most cases, do not experience large numbers visitation numbers. There may be HCA maintained trails, limited trails or a through trail such as the Bruce Trail that is not part of an existing HCA trail located on these lands. This land use category would apply to the following HCA owned and managed lands – Vinemount Swamp Conservation Area, Winona Conservation Area, Beverly Swamp Conservation Area and Fletcher Creek Ecological Preserve.

6.0 Future Considerations

The HCA is the area's largest environmental management agency and is dedicated to the conservation and enjoyment of watershed lands and water resources. The HCA undertakes critical work that relates to natural hazard planning and management, watershed monitoring to identify trends and restoration opportunities and conservation area management to protect natural heritage features and connect people to nature.

Through the development and approval of the HCA's Inventory of Programs and Services, Agreement for Services with the City of Hamilton and Township of Puslinch and the development of WbRMS, issues, costs and risks related to these programs were considered (see Appendix 1). These programs include natural hazard management, conservation areas and lands, drinking water source protection and water quality and quantity monitoring. The HCA's programs and services comply with regulatory requirements and provide value and experiences for the City of Hamilton, Township of Puslinch, watershed residents and landowners and people from outside the watershed.

Times change, issues evolve, and new issues arise, and these changes will result in pressures related to natural hazards, natural heritage and the watershed community at-large. There will be opportunities as well through increased partnerships with municipalities to enhance subwatershed planning and monitoring programs, as examples. Ultimately, the HCA's Strategic Plan will provide overall guidance regarding programs and services. The WbRMS will provide a finer level of guidance and will be updated based on HCA's overall strategic priorities to address these changes, opportunities and effectiveness of programs as required. Lastly, issue specific strategies and plans will be maintained based on the HCA Strategic Plan and WbRMS to provide a greater level of direction and guidance related to these specific issues. The following highlights the hierarchy of this approach.



HCA's successes since 1958 are the result of diligent Board of Director and staff commitment to conserving and restoring the HCA watershed. These efforts have included effective partnerships with governments and agencies at the federal, provincial and municipal level, local businesses, residents and landowners, conservation area visitors and groups like Friends of Eramosa Karst and Friends of Westfield. Moving forward, these relationships and partnerships will need to continue and be enhanced with a focus on greater consultation and engagement with the Mississauga of the Credit First Nation and Six Nations of the Grand River First Nation.

7.0 Public Engagement

Public engagement for the WbRMS was undertaken in two phases. The first phase involved posting information regarding the development of the strategy and the associated regulatory requirements of Ontario Regulation 686/21 on the HCA's dedicated website for the WbRMS and the public consultation webpage "Bang the Table". Further, the process and intent of the WbRMS was reviewed at a high level in meetings with the Mississauga of the Credit First Nation and the Six Nations of the Grand River First Nation.

The second phase of the consultation process involved the circulation of the draft WbRMS. At this stage the strategy was reviewed by the HCA's Conservation Advisory Board and the HCA's Board of Directors prior to the strategy being made available for broader consultation. The intent of the circulation of the draft strategy was to provide an overview of the regulatory requirements and how HCA staff had completed the document to incorporate these requirements.

Through the second consultation phase, the consultation websites were visited 200 times, however, no comments were provided by the public. Through direct stakeholder engagement, comments were received from Royal Botanical Gardens and the City of Hamilton. The comments were incorporated into the strategy as appropriate to provide further details related to the Watershed Characterization section and did not result in substantive changes to the overall strategy.

8.0 Periodic Review

Ontario Regulation 686/21 requires a process for the periodic review and updating of the WbRMS including procedures to ensure stakeholders and the public are consulted during the review and update process. In this regard, the WbRMS should be reviewed within a year after the appointment of a new Board of Directors for the HCA. This timing allows for consideration of environmental, social and economic impacts while also aligning with the municipal election cycle in Ontario. A review can also be undertaken within the four-year period noted to address issues if they arise.

Stakeholder and public consultation will be undertaken during the above noted review periods to ensure awareness and transparency regarding the WbRMS.

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Appendix 1 – Summary of Existing Technical Studies, Monitoring Programs and Other Information

Program Area	Description	Category	Supporting Documents
Natural Hazard 1 Section 28.1 Permit Administration and compliance activities	Reviewing and processing permit applications, associated technical reports, site inspections, communication with applicants, agents, and consultants. Legal expenses for regulations and compliance.	1	<ul style="list-style-type: none"> • Conservation Authorities Act • Ontario Regulation 41/24 • Hamilton Conservation Authority Planning & Regulation Policies and Guidelines, 2011 • Technical Guide River & Stream System: Flooding Hazard Limit, Ontario, 2002. • Lake Ontario Shoreline Management Plan (Draft)
Natural Hazard 2 and 3 Review under Other Legislation and Municipal Plan Input and Review	<p>Input to the review and approval processes under other applicable law, (e.g. Environmental Assessment Act, Drainage Act, Aggregate Resources Act, Niagara Escarpment Planning and Development Act proposals) with comments related to natural hazards, wetlands, watercourses and Sec 28 permit requirements.</p> <p>Technical information and advice to municipalities on circulated municipal land use planning applications (Official Plan and Zoning By-law Amendments, Subdivisions, Consents, Minor Variances). Input to municipal land-use planning documents (OP, Comprehensive ZB, Secondary plans) related to natural hazards, on behalf of MNRF (delegated to CAs in 1983)</p>	1	<ul style="list-style-type: none"> • Conservation Authorities Act • Environmental Assessment Act, Drainage Act, Aggregate Resources Act, Niagara Escarpment Planning and Development Act, Greenbelt Plan • Ontario Regulation 41/24 • Hamilton Conservation Authority Planning & Regulation Policies and Guidelines, 2011 • Technical Guide River & Stream System: Flooding Hazard Limit, Ontario, 2002. • Lake Ontario Shoreline Management Plan (Draft)
Natural Hazard 4 & 6 Flood Forecasting and Warning	Daily data collection and monitoring of weather forecasts, provincial & local water level forecasts and watershed conditions. Flood event forecasting. Flood warning and communications. Maintenance of equipment.	1	<ul style="list-style-type: none"> • Data on precipitation, watercourse flows, reservoir levels from 6 stream flow gauges, 10 rainfall gauges and 4 snow courses • Weather forecasts Surface water Monitoring Centre alerts • Watershed observations and knowledge • Flood Plain mapping • Hydrologic and hydraulic models • HCA Infrastructure Operational Plan • HCA Infrastructure Asset Management Plan
Natural Hazard 5 Flood and Erosion Control Infrastructure Operation and Management	Water & erosion control infrastructure and low flow augmentation.	1	<ul style="list-style-type: none"> • HCA Infrastructure Operational Plan • HCA Infrastructure Asset Management Plan

Natural Hazard 6 Flood Plain Mapping	Data collection, analysis and identification of areas susceptible to riverine or coastal flooding to create mapping products to delineate flood-prone areas.	1	<ul style="list-style-type: none"> • Technical Guide River & Stream System: Flooding Hazard Limit, Ontario, 2002.
Natural Hazard 7 Ice Management Services	Frazil ice formation forecasting in Spencer Creek in Dundas, including potential standby equipment.	1	<ul style="list-style-type: none"> • HCA Ice Management Plan
Natural Hazard 8 Low water response	Conditions monitoring/analysis. Technical & administrative support to the Water Response Team representing major water users and decision makers, who recommend drought response actions.	1	<ul style="list-style-type: none"> • Data on precipitation, watercourse flows, reservoir levels from 6 stream flow gauges, 10 rainfall gauges and 4 snow courses • Watershed observations and knowledge • HCA Infrastructure Operational Plan
Natural Hazard 9 Natural Hazards Technical Studies and Information Management	Data collection and study of designs to mitigate natural hazards. Development and use of systems to collect and store data and to provide spatial geographical representations of data.	1	<ul style="list-style-type: none"> • HCA Watershed-based Resource Management Strategy • Technical Guide River & Stream System: Flooding Hazard Limit, Ontario, 2002.
Natural Hazard 10 Natural Hazards Communications, Outreach and Education	Promoting public awareness of natural hazards including flooding, drought, and erosion. Public events, materials. Social media services. Media relations.	1	<ul style="list-style-type: none"> • HCA Marketing and Communications Department
Conservation Lands 1 Section 29 Minister's regulation Rules for Conduct in Conservation Areas	Conservation areas enforcement/compliance Legal expenses for regulation and compliance	1	<ul style="list-style-type: none"> • Ontario Regulation 688/21 Rules of Conduct in Conservation Areas
Conservation Lands 2 Conservation Area Strategy	Guiding principles, objectives, including for an authority's land acquisition and disposition strategy, land use categories on conservation authority owned land, recommended management principles for different land categories, etc.	1	<ul style="list-style-type: none"> • Ontario Regulation 686/21
Conservation Lands 3 Land Inventory	Development of an inventory containing information for every parcel of land owned or controlled by the Authority.	1	<ul style="list-style-type: none"> • HCA Land Inventory
Conservation Lands 4 and 5 Management, operation and Maintenance of CA owned lands	Management and Maintenance of HCA owned lands Includes: Stewardship and restoration, Master and management plans, hazard tree and invasive species management and, Ecological monitoring Programs and services to maintain any facilities, trails or other amenities that support	1, 2 and 3	<ul style="list-style-type: none"> • Ontario Regulation 688/21 Rules of Conduct in Conservation Areas HCA conservation area master plans and management plans • HCA Aquatic Resource Management Program

	<p>public access and recreational activities in conservation areas and that can be provided without the direct support or supervision of staff employed by the authority or by another person or body</p> <p>Management and maintenance of HCA owned lands to connect communities and residents with active outdoor recreation opportunities such as camp sites, marina, pavilions, boat rentals, concessions and other assets that can be provided with the direct support or supervision of staff employed by the authority or by another person or body</p>		<ul style="list-style-type: none"> • HCA Terrestrial Resource Management Program • HCA Invasive Species Strategy
Conservation Lands 6 Outdoor Environmental Education	Program Development and Delivery	3	
Conservation Lands 7 Cultural Heritage Education and Experiences	Program Development and Delivery	2 and 3	
Conservation Lands 8 Land Lease and Agreement Management	Management of land leases and property agreements for agricultural leases and house rentals, as well as temporary third-party agreements on HCA owned or managed property for events, weddings, film shoots, day camps, group picnics, etc.	2 and 3	
Conservation Lands 9 Land Acquisition Program	Acquisition of lands containing important natural heritage features, or natural hazards or strategically aligned with existing HCA lands as identified in the Land acquisition and securement policy.	3	<ul style="list-style-type: none"> • Conservation Authorities Act • HCA Land Securement Strategy • HCA Conservation Area Strategy • HCA Land Inventory
Conservation Lands 10 Partnership Building and Volunteer Support	Development and management of mutually beneficial community partnerships, (e.g. “friends of” groups), agreements with First Nations (e.g. deer harvest) volunteer events (e.g. garbage pick-up, plantings, invasive species removal etc.) and collaboration and work with partners on shared goals and objectives (Cootes to Escarpment, Hamilton Burlington Trails Council, Bruce Trail Conservancy etc.).	3	

<p>Drinking Water Source Protection 1 and 2</p> <p>Source protection authority role as set out in the Clean Water Act – supporting Stewardship</p>	<p>Source Protection Area/Region, tech support, SPC support, SPA reports and meetings, activities required by the Clean Water Act and regulations. Assisting in the co-ordination and implementation of the source protection plan that applies to the authority's source protection area. Where the authority considers it advisable, reviewing and commenting on any proposal made under another Act that is circulated to the authority for the purpose of determining, i. whether the proposal relates to a significant drinking water threat that is governed by the plan, or ii. the proposal's potential impact on any drinking water sources protected by the plan.</p> <p>Well decommissioning</p>	1 and 2	<ul style="list-style-type: none"> • Clean Water Act • Assessment Report for the Hamilton Region Source protection Area • Halton-Hamilton Source Protection Plan
<p>Water Quality Quantity 1</p> <p>Provincial Water Quality Monitoring Network (PWQMN)</p>	<p>A long-standing (50+ year) CA/MECP partnership for stream water quality monitoring. CA takes water samples; MECP does lab analysis and data management</p>	1	<ul style="list-style-type: none"> • PWQMN Program Requirements
<p>Water Quality Quantity 2</p> <p>Provincial Groundwater Monitoring Network (PGMN)</p>	<p>A long-standing (20+ year) CA/MECP partnership for groundwater level and quality monitoring. CA maintains equipment, data transfer to MECP, water sampling; MECP provides equipment, standards, data management.</p>	1	<ul style="list-style-type: none"> • PGMN Program Requirements
<p>Water Quality Quantity 3</p> <p>Aquatic Monitoring Program – non-HCA lands</p>	<p>Aquatic monitoring on 3-year cycle basis (OBBN, temperature and fish collection.</p>	2 and 3	<ul style="list-style-type: none"> • HCA Aquatic Resource Management Program
<p>Water Quality Quantity 4</p> <p>Water Quality Monitoring - City</p>	<p>Water quality and erosion site monitoring for City of Hamilton</p> <p>City of Hamilton Groundwater Monitoring Well Inspections</p> <p>City of Hamilton Groundwater Monitoring Well Water Quality Sampling</p> <p>City of Hamilton E. Coli Sampling Program at PWQMN Sites</p> <p>Greensville Surface Water Monitoring</p>	2	<ul style="list-style-type: none"> • Program Agreement and Requirement Outline

Water Quality Quantity 5 Water Quality Monitoring – COA and HHRAP	Water quality monitoring associated with tributaries to Cootes Paradise as part of COA and HHRAP monitoring	3	<ul style="list-style-type: none"> Program Agreement and Requirement Outline
Core Watershed 1 Watershed-based Resource Management Strategy	Develop guiding principles and objectives that inform the design and delivery of programs and services the CA is required to provide Collate/compile existing resource management plans, watershed plans, studies and data. Strategy development, Implementation & annual reporting A review of programs and services provide for the purposes of compliance with CA Act Develop a process for periodic review including procedures to engage/consult with stakeholders and the public. Strategy development must include a stakeholder and public consultation component The Watershed based resource management strategy must be made public on the CA website.	1	<ul style="list-style-type: none"> Ontario Regulation 686/21
Core Watershed 2 Sub-watershed planning	Partner developed plan which identifies streams, wetlands, forests, groundwater recharge areas, and other natural areas. It includes an inventory of plants, animals, birds, and other species. Information on stream flows, water quality, groundwater movement and other natural features is also included. The plan contains policies and implementation actions to protect, enhance and improve the health of the area.	2 and 3	
Core Watershed 3 Watershed Monitoring program	Planning and undertaking an ecological monitoring program on a watershed basis to support the objectives of both HCA and our two municipal partners. This includes the collection, storage, assessment and distribution of ecological data and information regarding watershed conditions and health and participation on any working groups.	2 and 3	<ul style="list-style-type: none"> HCA conservation area master plans and management plans HCA Aquatic Resource Management Program HCA Terrestrial Resource Management Program HCA Invasive Species Strategy
Core Watershed 4 Watershed Stewardship and	Apply for and manage external funding, promote private land stewardship, outreach, provide advice	2 and 3	<ul style="list-style-type: none"> HCA conservation area master plans and management plans

Restoration (Urban, rural & Agriculture)	and design assistance to property owners. Implementation of watershed plan stewardship recommendations.		<ul style="list-style-type: none"> • HCA Aquatic Resource Management Program • HCA Terrestrial Resource Management Program • HCA Invasive Species Strategy • HCA Stewardship Action Plans
Core Watershed 5 Climate change impact assessment /Planning and Policies	Identification of vulnerability or risk, and the development of mitigation and adaptation polices and corporate climate change initiatives	1, 2 and 3	<ul style="list-style-type: none"> • HCA Climate Change Strategy

Resources

1. Conservation Authorities Act - <https://www.ontario.ca/laws/statute/90c27>
2. Ontario Regulation 686/21 - <https://www.ontario.ca/laws/regulation/210686>
3. HCA Strategic Plan 2025-2029
4. 2023 Watershed Report Card - https://conservationhamilton.ca/wp-content/uploads/2023/03/HCA_Watershed-Report-Card-Final.pdf
5. Assessment Report – Hamilton Region Source Protection Area - https://www.protectingwater.ca/wp-content/uploads/sites/2/2023/02/HamiltonARclean_221104.docx.pdf
6. Halton Hamilton Source Protection Plan - https://www.protectingwater.ca/wp-content/uploads/sites/2/2023/02/HHSP-clean_221104.docx.pdf
7. Watershed Plan for the Hamilton Region Conservation Authority, Volume 1 and 2, June 1983.
8. Hamilton Natural Areas Inventory Project 3rd Edition, Site Summaries Document, 2014
9. Spencer Creek Conservation Report, 1960, Department of Commerce and Development, Conservation Branch
10. Hamilton Region Conservation Report, 1968, Department of Energy and Resources Management, Conservation Authorities Branch

Report

TO: Conservation Advisory Board

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO/Director, Watershed Management Services

MEETING DATE: October 10, 2024

RE: HCA Land Inventory pursuant to Ontario Region 686/21

STAFF RECOMMENDATION

THAT the Conservation Advisory Board recommends to the Board of Directors:

THAT the Land Inventory (2024) be approved.

BACKGROUND & PURPOSE

Section 21.1 of the Conservation Authorities Act sets out Mandatory Programs and Services that all conservation authorities must deliver within their watershed, with these requirements outlined in greater detail in Ontario Regulation 686/21. Section 21.1.1 of the CA Act details Municipal Programs and Services that conservation authorities are permitted to provide under agreement to their municipal partners while Section 21.1.2 provides direction related to Other Programs and Services conservation authorities may deliver. Ontario Regulation 686/21, specifically, subsection 9(1), paragraph 3 outlines that all conservation authorities must complete a Land Inventory. The Land Inventory is required by regulation to be completed on or before December 31, 2024.

The Land Inventory was undertaken by the HCA to meet the requirements as outlined in the Conservation Authorities Act and Ontario Regulation 686/21. The purpose of this report is to:

- a) detail the requirements of Ontario Regulation 686/21, specifically, subsection 9(1), paragraph 3,

- b) detail how the HCA Land Inventory meets the noted requirements
- c) present an overview of the Land Inventory to the Conservation Areas Board and the Board of Directors for approval of the Land Inventory.

STAFF COMMENT

Ontario Regulation 686/21

Ontario Regulation 686/21 requires that the Land Inventory include the components as noted below and a description is provided in *italics* by HCA staff for each as to how the Land Inventory addresses the requirement. The completed Land Inventory is a large document that details approximately 430 properties. Due to the number of parcels detailed and the corresponding regulation requirements, a hard copy version of the Land Inventory is not being provided. However, the Land Inventory will be presented in detail for approval at the Conservation Areas Board meeting and the Board of Directors meeting.

The Land inventory referred to in paragraph 3 of subsection 9 (1) shall include the following information for every parcel of land the authority owns or controls:

1. The location of the parcel. *The Property Identification Number and the Assessment Roll Number is used to identify the location of the parcel. A corresponding map is also utilized to highlight the parcel location*
2. The identification of any information the authority has in its possession in respect of the parcel, including any surveys, site plans or other maps. *Each individual property file was reviewed and available registered plans, plans of survey and sketch drawings were noted. Parcels with no plans were also identified.*
3. When the authority acquired the parcel. *The date of acquisition is provided.*
4. Whether the parcel was acquired using a grant made under section 39 of the Act. *Each individual property file was reviewed as well as past Board minutes to assess if Section 39 funding was utilized for the parcel acquisition.*
5. Whether the parcel was acquired through an expropriation. *Each individual property file was reviewed as well as past Board minutes to confirm if the parcel was acquired through expropriation.*
6. Whether the authority owns the parcel or has a registered legal interest in the parcel, including an easement. *The legal interest in the parcel is identified.*
7. Identification of the land use categories mentioned in paragraph 4 of subsection 10 (1) that apply to the parcel. *Land use categories per the Conservation Area Strategy is detailed for each parcel*
8. For the purpose of ensuring a program or service is not included as a mandatory program or service under subparagraph 2 ii or v of subsection 9 (1), identification of whether,

- i. a recreational activity is provided on the parcel that requires the direct support or supervision of staff employed by the authority or by another person or body, or – *Each parcel is identified as being an active recreation (requiring direct supervision) or passive recreation (not requiring direct supervision)*
 - ii. commercial logging is carried out on the parcel. – *For all parcels, it is confirmed that no commercial logging activities take place on the subject lands.*
9. Whether or not the parcel or a portion of the parcel is suitable for the purposes of housing and housing infrastructure development, including identifying, - *none of the parcels in the Land Inventory have been identified as suitable for the purposes of housing and housing infrastructure development.*
- i. any applicable zoning by-law passed under section 34 or 38 of the *Planning Act* or any predecessor of them, - *the applicable zoning is identified.*
 - ii. if the parcel or a portion of the parcel augments any natural heritage located within the authority's area of jurisdiction, and – *Each parcel is identified as augmenting or not augmenting natural heritage.*
 - iii. if the parcel or a portion of the parcel integrates with other provincially or municipally owned lands or other publicly accessible lands and trails within the authority's area of jurisdiction. O. Reg. 686/21, s. 11 (1); O. Reg. 594/22, s. 2. - *Each parcel is identified as augmenting or not augmenting natural heritage.*

(2) The land inventory shall include a process for the periodic review and updating of the inventory by the authority. O. Reg. 686/21, s. 11 (2). *The maintenance and review of the Land Inventory has been assigned to the HCA's GIS Specialist. The Land Inventory will be updated as parcels are acquired and will be reviewed and maintained on an annual basis as part of the GIS Specialist job responsibilities.*

The HCA Land Inventory fulfills the requirements of Ontario Regulation 686/21.

AGENCY COMMENTS

N/A

LEGAL/FINANCIAL IMPLICATIONS

Ontario Regulation 686/21, specifically, subsection 9(1), paragraph 3 outlines that all conservation authorities must complete a Land Inventory. The Land Inventory is required by regulation to be completed on or before December 31, 2024. Staff time required to complete the land Inventory was allocated from within the existing operating budget for 2024.

CONCLUSIONS

The Land Inventory has been prepared to meet the requirements of Ontario Regulation 686/21. As additional lands are acquired by the HCA, the land Inventory will be updated to ensure continued compliance with the regulation.



Memorandum

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED BY: T. Scott Peck, MCIP, RPP, Deputy Chief Administrative Officer / Director, Watershed Management Services

PREPARED BY: Jonathan Bastien, P.Eng. – Manager, Water Resources Engineering

DATE: November 7th, 2024

RE: Watershed Conditions Report

SYNOPSIS

During the period of September 24th 2024 to October 24th 2024, there were no observations, reports, or expectations of significant water safety concerns, significant watercourse flooding events, or Lake Ontario shoreline flooding events.

There are no observations, reports, or expectations that significant watercourse flooding or significant water safety concerns are occurring at this time.

Current flows are near baseflow conditions.

The average monthly recorded flows for October so far have ranged between significantly below long-term averages to above long-term averages. The considerable variations in average October recorded flows are likely due to significant differences in local rainfall received in the ungauged areas upstream of each streamflow gauge.

Currently, there are no observations, reports, or expectations that significant Lake Ontario shoreline flooding is occurring. The Lake Ontario mean daily water level averaged across the entire lake was 6 cm below average for this time of year, as of yesterday.

Current Christie Lake levels are slightly below the preferred summer operating levels yet well above the preferred winter operating levels. Christie Lake dam outflows were

recently raised, to increase flows in Lower Spencer Creek in support of the salmon spawning season and to facilitate the planned fall drawdown of reservoir levels.

Current Valens Lake levels are below the preferred summer operating levels yet above the preferred winter operating levels. Reservoir levels have been manually decreased to allow for invasive vegetation management along the shoreline.

The most recent drought assessment indicated that normal conditions are an appropriate overall characterization of the watershed. Although monthly precipitation amounts in both September and August ranged between 40% and 98% of long-term averages, the monthly amounts in July were well above normal.

There are no significant rainfall events (+20 mm in a day) forecasted for the watershed over the next 2 weeks, at this time. In the next 9 days, no significant Lake Ontario shoreline flooding is expected, at this time. HCA staff will continue to undertake monthly drought assessments, and coordinate with the Hamilton Low Water Response Team as required if drought conditions are identified.

CURRENT WATERSHED CONDITIONS – October 24th, 2024

Current Flows in Major Area Watercourses

There are no observations, reports, or expectations that significant watercourse flooding or significant water safety concerns are occurring at this time.

Current flows are near baseflow conditions. The five available streamflow gauges are Upper Spencer Creek at Safari Road, Middle Spencer Creek at Highway 5, Lower Spencer Creek at Market Street, Ancaster Creek at Wilson Street and Red Hill Creek at Barton Street.

The average monthly recorded flows for October so far have ranged between significantly below long-term averages to slightly below long-term averages. Monthly flow in Upper Spencer Creek at Safari Road has been 32% of long-term averages (considered above average). Monthly flow in Middle Spencer Creek at Highway 5 has been 22% (considered significantly below average). Monthly flow in Lower Spencer Creek at Market Street has been 30% (considered significantly below average). Monthly flow in Ancaster Creek at Wilson Street has been 76% (considered slightly below average). Monthly flow in Red Hill Creek at Barton Street has been 51% (considered well below average). The precipitation amounts recorded at the streamflow gauges do not explain the considerable variations in average monthly recorded flows. There was also no significant thunderstorm activity, nor significant alteration of flows due to dam operations, during the month. It is therefore expected that the considerable variations in average monthly recorded flows are likely due to significant differences in local rainfall received in the ungauged areas upstream of each streamflow gauge.

September 2024 average recorded flows ranged between significantly below long-term averages to at long-term averages. Monthly flow in Upper Spencer Creek at Safari Road was 80% of long-term averages (considered slightly above average). Monthly flow in Middle Spencer Creek at Highway 5 was 39% (considered significantly below average). Monthly flow in Lower Spencer Creek at Market Street was 62% (considered below average). Monthly flow in Ancaster Creek at Wilson Street was 96% (considered average). Monthly flow in Red Hill Creek at Barton Street was 78% (considered slightly below average). The precipitation amounts recorded at the Middle Spencer Creek at Highway 5 gauge do not explain the considerably lower average monthly recorded flows, when compared to the other streamflow gauges. There was also no significant thunderstorm activity, nor significant alteration of flows due to dam operations, during the month. It is therefore expected that the considerable variations in average monthly recorded flow is likely due to significant differences in local rainfall received in the ungauged areas upstream of the Middle Spencer Creek at Highway 5 gauge.

August 2024 average recorded flows ranged between below long-term averages to above long-term averages. Monthly flow in Upper Spencer Creek at Safari Road 65% of long-term averages (considered below average). Monthly flow in Middle Spencer Creek at Highway 5 was 82% (considered slightly below average). Monthly flow in Lower Spencer Creek at Market Street was 126% (considered above average). Monthly flow in Ancaster Creek at Wilson Street was 123% (considered slightly above average). Monthly flow in Red Hill Creek at Barton Street was 73% (considered slightly below average). Variations in average monthly recorded flows between the available streamflow gauges is expected to be due local thunderstorms in ungauged areas.

Current Lake Ontario Water Levels

At this time, there are no observations, reports, or expectations of significant Lake Ontario shoreline flooding. The Lake Ontario mean daily water level in the Hamilton area was 74.53 to 74.54 m IGLD85 as of yesterday. The Lake Ontario mean daily water level averaged across the entire lake (74.53 m IGLD85 as of yesterday) is 6 cm below average for this time of year.

Current Storages in HCA Reservoirs

Current Christie Lake levels (770.75 ft) are slightly below the preferred summer operating levels (771.00 to 771.50 ft), yet well above the preferred winter operating levels (765.30 to 765.80 ft). Christie Lake dam outflows were recently raised (starting October 23), to increase flows in Lower Spencer Creek in support of the salmon spawning season and to facilitate the planned fall drawdown of reservoir levels.

Current Valens Lake levels (274.92 m) are below the preferred summer operating levels (275.25 to 275.45 m), yet above the preferred winter operating levels (274.15 to

274.40m). Reservoir levels have been manually decreased to allow for invasive vegetation management along the shoreline.

Current Soil Conditions

Surface and root-zone soils are considered moist to wet across the watershed.

RECENT STORM EVENTS

During the period of September 24th 2024 to October 24th 2024, there were no observations, reports, or expectations of significant water safety concerns, significant watercourse flooding events, or Lake Ontario shoreline flooding events.

RECENT WATERSHED LOW WATER CONDITIONS

The most recent drought assessment (including data up to September 30) indicated that normal conditions are an appropriate overall characterization of the watershed. Although monthly precipitation amounts in both September and August ranged between 40% and 98% of long-term averages, the monthly amounts in July were well above normal.

FORECASTED WATERSHED CONDITIONS

Watercourse Flooding

There are currently no significant rainfall events (+20 mm in a day) forecasted for the watershed over the next 2 weeks. HCA staff continue to monitor conditions and forecasts routinely. Resultant water levels and flows from currently anticipated rain are not expected to result in significant watercourse flooding.

Lake Ontario Shoreline Flooding

In the next 9 days, no significant Lake Ontario shoreline flooding is expected.

Watershed Low Water Conditions

HCA staff will continue to undertake monthly drought assessments, and coordinate with the Hamilton Low Water Response Team as required if drought conditions are identified.



Memorandum

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

PREPARED BY: Liam Fletcher, Eastern Senior Manager CAS

MEETING DATE: November 7, 2024

RE: Conservation Areas Experiences Update

BACKGROUND:

HCA provides high quality, diverse conservation areas that promote outdoor recreation, health and well being and strengthen public awareness of the importance of being in or near our conservation areas.

STAFF REPORTING COMMENTS

- **Spencer Gorge Conservation Area**

The reservation service will conclude on November 10, 2024, for this year's operational season. Advance reservations have continued to prove effective in managing visitors, reducing vehicle congestion, and minimizing pedestrian hazards. There has been a total of 4477 reservations for Spencer Gorge up to October 28 during the reservation period.

- **Haudenosaunee Habitat Wildlife Authority Deer Harvest**

The annual Haudenosaunee Habitat Wildlife Authority Deer Harvest began on Monday, November 4, 2024, and will run until Thursday, December 5, 2024. The harvest is conducted on HCA-owned lands on Mondays, Tuesdays, Wednesdays, and Thursdays in the west end of the Dundas Valley Conservation Area in two areas designated as Schedule A and Schedule B. Schedule B has no public access or trail system. Hamilton Police Services, the City of Hamilton municipal law enforcement and Ministry of Natural Resources Enforcement staff have been consulted concerning public safety and advised of the harvest and corresponding area

closures. Appropriate trail signage and notification to adjacent residents about the harvest and area closure has been provided.

- **Confederation Beach Park**

The Hamilton Road2Hope Marathon will take place on November 4 and 5, 2024 at Confederation Beach Park. Events include a full marathon, half marathon, 10K, 5K, and 1K kid's race. The event supports various local charities, promoting health and wellness in the community. The scenic course along the Waterfront trail, offers participants a beautiful autumn backdrop along the shoreline of Lake Ontario, making it one of Hamilton's most popular annual events.