



Board of Directors Meeting Agenda

Thursday, April 1, 2021



Board of Directors Meeting

Thursday, April 1, 2021 at 7:00 p.m.

This meeting will be held by WebEx videoconference.

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

- 1. Call to Order** – Ferguson
- 2. Declarations of Conflict of Interest**
- 3. Approval of Agenda**
- 4. Delegations**
 - 4.1. Chris and Lisa Garofalo, home and landowner next to Tew Falls parking lot
- 5. Consent Items for Applications, Minutes and Correspondence**
 - 5.1. Applications – Development, Interference with Wetlands, Alterations to Shorelines and Watercourses
 - 5.2. Approval of Board of Directors Minutes – March 4, 2021
 - 5.3. Letter from Gwyneth Xagoraris regarding visitor / parking management at waterfall locations, dated February 24, 2021
- 6. Member Briefing**
 - 6.1. 2020 Annual Report – Presentation – Burnside
- 7. Business Arising from the Minutes**
 - 7.1. Natural Heritage Offsetting Policy Discussion Paper – Peck
 - 7.2. Consultation of Growing the Greenbelt (ERO#019-3136) – HCA Submission – Peck
- 8. Reports from Budget & Administration Committee, Conservation Advisory Board, and the Foundation**

8.1. Foundation Chairman's Remarks

– Margaret Reid

9. Other Staff Reports/Memorandums

9.1. Watershed Conditions Report

– Peck

9.2. Conservation Areas Experiences Update

– Costie

10. New Business

11. In-Camera Items for Matters of Law, Personnel and Property

12. Next Meeting – Thursday, May 6, 2021 at 7:00 p.m.

13. Adjournment



Memorandum

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer

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

MEETING DATE: April 1, 2021

RE: Summary Enforcement Report – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses
Regulation 161/06 Applications for April 1, 2021

HCA Regulation applications approved by staff between the dates of February 22, 2021 and March 18, 2021 are summarized in the following Summary Enforcement Report (SER-3/21).

RECOMMENDATION

THAT the Board of Directors receive this Summary Enforcement Report SER-3/21 as information.

HAMILTON REGION CONSERVATION AUTHORITY**DEVELOPMENT, INTERFERENCE WITH WETLANDS, AND ALTERATIONS TO SHORELINES AND WATERCOURSES APPLICATIONS**

March 18, 2021

Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Applications Report to the Board of Directors of the Hamilton Region Conservation Authority, April 01, 2021

The proposed works are subject to Ontario Regulation 161/06, and in particular Section 2, Subsection (1).

SUMMARY ENFORCEMENT REPORT SER 3/21

File Number	Date Received	Date Permit Issued	Review Days	Applicant Name	Location	Application Description	Recommendation / Conditions
D/F,C,A/21/07	22-Jan-21	05-Mar-21	44		147 King St E Lot 18, Concession 1 Dundas	Sediment removal and maintenance works on SWMF Pond 152 in a regulated area of Lower Spencer Creek.	Approved subject to standard conditions
H/F,C,A/21/08	22-Jan-21	05-Mar-21	44		320 Albright Rd Lot 32, Concession 4 Hamilton	Sediment removal and maintenance works on SWMF Pond 110 in a regulated area of Red Hill Creek.	Approved subject to standard conditions
SC/F,A/21/09	22-Jan-21	05-Mar-21	44		Aquamarine Dr 127 Galileo Dr Lot 12, Concession BF Stoney Creek	behind Sediment removal and maintenance works on SWMF Pond 105 in a regulated area of Watercourse 6.	Approved subject to standard conditions
SC/F,A/21/10	22-Jan-21	05-Mar-21	44		Beside 35 Springbreeze Hts Lot 10, Concession BF Stoney Creek	Sediment removal and maintenance works on SWMF Pond 104 in a regulated area of Watercourse 6.3.	Approved subject to standard conditions

HAMILTON REGION CONSERVATION AUTHORITY

DEVELOPMENT, INTERFERENCE WITH WETLANDS, AND ALTERATIONS TO SHORELINES AND WATERCOURSES APPLICATIONS

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SUMMARY ENFORCEMENT REPORT SER 3/21

SC/F,A/21/11	22-Jan-21	05-Mar-21			69 Chiara Dr Lot 10, Concession BF Stoney Creek	Sediment removal and maintenance works on SWMF Pond 103 in a regulated area on Lake Ontario.	Approved subject to standard conditions
SC/F,C,A/18/88	01-Oct-18	05-Mar-21	87		29 Lochside Dr Lot 2, Concession BF Stoney Creek	Retrofit of an existing shoreline retaining wall in a regulated area of the Lake Ontario shoreline.	Approved subject to standard conditions
H/F,C,A/21/12	29-Jan-21	12-Mar-21	47		Pt Lt 29, Cons 6 and 7, Mud St W Lot 29, Concession 6, 7 Hamilton	Rehabilitation of the Mud Street Bridge (Bridge No. 366) in a regulated area of Felker's Creek.	Approved subject to standard conditions

Hamilton Region Conservation Authority

Minutes

Board of Directors Meeting

March 4, 2021

Minutes of the Board of Directors meeting held on Thursday, March 4, 2021, at 7.p.m., by videoconference and livestreamed via YouTube.

PRESENT: **Lloyd Ferguson – in the Chair**
 Dan Bowman **Brad Clark**
 Jim Cimba **Chad Collins**
 Tom Jackson **Cynthia Janzen**
 Santina Moccio **Maria Topalovic**

Margaret Reid – Foundation Chair

REGRETS: **Esther Pauls, Susan Fielding**

STAFF PRESENT: **Lisa Burnside, Grace Correia, Gord Costie, Matt Hall, Neil McDougall, Scott Peck, Mike Stone, Jaime Tellier, and Nancy Watts**

OTHERS: **None**

1. Call to Order

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

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.

BD12, 2856

MOVED BY: Cynthia Janzen
SECONDED BY: Maria Topalovic

THAT the agenda be approved.

CARRIED

4. Delegations

There were none.

5. Consent Items for Applications, Minutes and Correspondence

The following consent items were adopted:

- 5.1. Applications – Development, Interference with Wetlands, Alterations to Shorelines and Watercourses
- 5.2. Approval of Board of Directors Minutes – February 4, 2021
- 5.3. Approved October 10, 2020 Conservation Advisory Board Minutes – for receipt only
- 5.4. Email from MECP re Proclamation of Provisions of the Conservation Authorities Act, February 5, 2021
- 5.5. News Release ‘Ontario Takes Steps to Grow the Greenbelt’, Ministry of Municipal Affairs and Housing, February 21, 2021

Brad Clark requested item 5.5 be brought out of the consent agenda to ask questions of staff. Brad asked Scott Peck if there is any opportunity to include the Saltfleet Conservation Area in the expansion of the Greenbelt Plan area.

Scott advised that the Saltfleet Conservation Area and other lands to the east of Centennial Parkway are largely already included in the Greenbelt Plan area. The direction of the proposal from the province is primarily to add urban river valleys, to connect them to the existing Greenbelt Plan Area. With respect to the Saltfleet Conservation Area, staff would be supportive of the Stoney and Battlefield Creeks systems being included in the Greenbelt Plan.

Brad further inquired about the process for submitting this request. Scott noted the discussion paper is high level at this time and does not include details of the process. He added that he understands City of Hamilton staff will be bringing a report on the proposed expansion to City Council in the coming weeks. HCA staff will bring a report to the Board of Directors in April regarding the proposed expansion as it relates to HCA lands and will include these connections to the Saltfleet Conservation Area in the report.

Brad also inquired about the potential to include the Eramosa Karst feeder lands in this expansion to preserve the lands in perpetuity. Scott indicated that these lands could also be included in the forthcoming staff report.

6. Member Briefing

There was none.

7. Business Arising from the Minutes

7.1. Proclamation of Governance Provisions of the Conservation Authorities Act

Lisa Burnside gave a presentation summarizing the report and answered the members' questions related to exception application requirements for a board resolution, recorded vote, meeting minutes and the timeframe the Ministry staff are striving to respond to for all exception requests. It was also noted that it is not possible for HCA to follow the provision for the rotation amongst participating municipalities for the position of Chair and Vice-Chair with only one member from a second participating municipality to succeed the two City of Hamilton members. Lisa further added that all 36 Conservation Authorities have different board memberships and composition and the province has provided the exception process to consider local circumstances.

The members expressed their strong support for the staff recommendations and made note of how citizen representatives on the Board have made valuable contributions. All six recommendations reinforce our current process which operates effectively.

BD12, 2857

**MOVED BY: Cynthia Janzen
SECONDED BY: Brad Clark**

WHEREAS some specific provisions in the Conservation Authorities Act were recently proclaimed to initiate changes to conservation authority governance; and

WHEREAS the June 3, 2021, HCA Annual General Meeting is affected by the changes as it relates to the rotation of the Chair and Vice Chair positions amongst participating municipalities unless the Authority applies to the Minister of the Environment, Conservation and Parks requesting an exception and

WHEREAS the June 3, 2021, HCA Annual General Meeting is also impacted by term limits for the positions

of Chair and Vice Chair unless the Authority applies to the Minister of the Environment, Conservation and Parks requesting an exception; and

WHEREAS the future citizen appointments to the HCA Board of Directors would be impacted by the requirement to have 70% of board members to be elected officials unless HCA's participating municipalities, the City of Hamilton and Township of Puslinch, apply to the Minister of the Environment, Conservation and Parks requesting an exception;

THEREFORE, BE IT RESOLVED

THAT the Board of Directors approve the following:

1. **THAT** the Hamilton Conservation Authority apply to the Minister of the Environment, Conservation and Parks requesting an exception to the rotation of the Chair and Vice Chair position to rotate amongst participating municipalities given HCA's unique board composition with only two participating municipalities and just one member from the second participating municipality; and further
2. **THAT** the rotation be based on annual democratic election by board members who wish to stand for these positions and further;
3. **THAT** an exception also be requested to the maximum two consecutive term limits for the position of Chair and Vice Chair to a maximum of four consecutive terms to align with the appointment terms from the participating municipalities and further;
4. **THAT** the maximum four consecutive terms be based on annual democratic election by board members who wish to stand for these positions and further;
5. **THAT** the Board endorse the current complement of five elected officials and five citizen appointments from the City of Hamilton and the

option of the Township of Puslinch to appoint either a citizen or elected official and further;

6. THAT HCA request the City of Hamilton and Township of Puslinch make application to the Minister of the Environment, Conservation and Parks to request exceptions to maintain the current complement of citizen appointments on the HCA Board.

RECORDED VOTE:

For:	Dan Bowman	Opposed:	None
	Brad Clark		
	Jim Cimba		
	Chad Collins		
	Lloyd Ferguson		
	Tom Jackson		
	Cynthia Janzen		
	Santina Moccio		
	Maria Topalovic		

CARRIED

7.2. Mandatory Permit Insurance Indemnification – Verbal Update

Neil McDougall advised the Board that he contacted the General Manager of Conservation Ontario to obtain any status updates on indemnity from the Province when conservation authorities are required to issue permits without staff and Board approval. Conservation Ontario advised that a request was submitted to the Province and a response has not yet been received. Conservation Ontario has submitted a request for a save harmless statement from the Province on behalf of all Conservation Authorities.

8. Reports from Budget & Administration Committee, Conservation Advisory Board, and the Foundation

8.1. Conservation Advisory Board – February 11, 2021
(Recommendations)

8.1.1. CA 2103 2021 Reservation Service –
Spencer Gorge Conservation Area

Gord Costie provided a summary of the report, highlighting the success of the pilot project in managing visitation and traffic in the vicinity of the conservation area. Gord noted there was good discussion at the Conservation Advisory Board meeting about the reservation system.

BD12, 2858

MOVED BY: Maria Topalovic

SECONDED BY: Dan Bowman

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

WHEREAS the COVID-19 pandemic continues to drive and reshape HCA Conservation Area operations, visitor attendance levels, and visitor management strategies;

WHEREAS the former Shuttle Bus service based out of Christie Lake was effectively removed as a visitor management measure for the Spencer Gorge Conservation Area due to the COVID-19 pandemic measures and operational challenges;

WHEREAS the pilot 2020 reservation system for Dundas Peak, Tew Falls, and Webster Falls operations for the fall colour season, was highly successful in controlling and regulating the number of visitors, reducing vehicle traffic and congestion within the nearby community;

WHEREAS staff were directed to evaluate the effectiveness of the pilot reservation system and report back regarding its ongoing potential during the regular operation system in 2021;

THEREFORE, be it resolved

THAT staff be directed to implement the following recommendations outlined in the report titled “2021 Reservation Service – Spencer Gorge Conservation Area”;

Recommendation #1 - THAT the reservation system continue as an extension of the 2020 fall pilot program during the main operating season allowing staff the opportunity to further evaluate the effectiveness of a longer reservation service period; and further

Recommendation #2 – THAT the 2021 reservation system for Spencer Gorge Conservation Area continue to

operate 7 days a week for a 6-month period extending from May to November, with specific dates to be determined by staff, and further

Recommendation #3 - THAT staff continue to monitor and evaluate the effectiveness of a full main operating season reservation area service at the Spencer Gorge Conservation Area regarding its ongoing potential to be a permanent part of operations to address parking and visitor management for the area.

CARRIED

8.1.2. CA 2104 Westfield Heritage Village Accession and Deaccession Lists

Maria Topalovic provided a summary of the report.

**BD12, 2859 MOVED BY: Maria Topalovic
 SECONDED BY: Brad Clark**

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

THAT the Westfield 2020 Artifact Accessions List as noted in the February 11, 2021 Accession report be accepted as the artifacts to be added to the Westfield Heritage Village Conservation Area and the Hamilton Conservation Authority collection.

CARRIED

8.2. Foundation Chairman's Remarks

Margaret Reid presented on the following:

Donations

We received a total of **\$16,258** in donations from February 1 to 28, 2021. They break down as follows:

- \$5,000 for the Saltfleet CA Wetland Project
- \$4,578 for the Area of Greatest Need Fund
- \$4,000 for Plantings at Valens Lake CA
- \$1,050 for the Dundas Valley Fund
- \$950 for Westfield Heritage Village

- The remaining \$680 was donated to Tree and Shrub Planting, Environmental Education and Land Securement

This brings our fiscal year-to-date (Dec 2020 to Feb 2021) fundraising total to **\$66,343**

Margaret thanked Cynthia Janzen for her advice on marketing and outreach. The Foundation Board of Directors is currently developing a communications plan.

BD12, 2860

MOVED BY: Santina Moccio

SECONDED BY: Maria Topalovic

THAT the Foundation Chairman's Report be received as information.

CARRIED

9. Other Staff Reports/Memoranda

9.1. Permit Timelines – Conservation Ontario Client Service Initiative

Mike Stone presented a summary of the memorandum and answered the members' questions.

Brad Clark inquired about ramifications for not meeting the prescribed timeframes, given the complexity of some large applications. Mike Stone commented that the standards are intended as best practices rather than prescribed in legislation. He added that staff are committed to providing the best service possible.

BD12, 2861

MOVED BY: Cynthia Janzen

SECONDED BY: Dan Bowman

THAT the memorandum entitled Annual Reporting on CA Permit Review Timelines – January 1, 2020 to December 31, 2020 be received as information.

CARRIED

9.2. Tender for Lawn Mower Equipment

Neil McDougall presented a summary of the report, highlighting that the units have been tested by staff and are replacing existing older units. He further noted that the staff recommendation is to award the contract to the lowest bidder.

BD12, 2862**MOVED BY: Chad Collins
SECONDED BY: Santina Moccio****THAT the Board of Directors award the purchase of nine (9) Zero Turn lawn mowers to Galer Farm Equipment LTD for the amount totaling \$124,845.12 (includes applicable taxes).****CARRIED****9.3. Watershed Conditions Report**

Scott Peck presented a summary of the memorandum, stating that current water levels in some of our major watercourses are well below the long-term averages, consistent with a level 2 low water condition. This is unusual for this time of year. Staff will continue to monitor the watercourses according to our low water protocols.

Scott also noted the Lake Ontario water levels are 9 cm below average for this time of year and 74 cm below the highest level ever recorded for this time of year.

The Chair inquired about issues with flooding associated with snow melt. Scott responded that there are no specific concerns with snow melt flooding at this time.

BD12, 2863**MOVED BY: Santina Moccio
SECONDED BY: Maria Topalovic****THAT the memorandum entitled Watershed Conditions Report be received as information.****CARRIED****9.4. Conservation Areas Experiences Update**

Gord Costie provided a verbal update advising that the Westfield Heritage Village Maple Syrup Festival and Spring Christie Lake Antique and Vintage Show are both cancelled due to the pandemic.

Gord further shared that high visitation to the Conservation Areas continues. Staff have responded with early staffing of gate houses and maintenance to meet the visitation demands. The larger areas are holding well as they have substantial parking and acreage. However, the smaller parkette conservations areas, such as Tiffany Falls, Artaban Road, the Hermitage, Webster Falls, Tew Falls, and Devil's Punchbowl are overwhelmed at times. In response, staff have deployed weekend private security, road way pylons and barricades have been installed, and social

media updates are sent out. Staff are also reviewing other visitor management measures and will be brought to the City Waterfalls Working Group.

Lloyd Ferguson added that he will be bringing a motion to an upcoming City of Hamilton General Issues Committee for Tiffany Falls to be designated as a Special Enforcement Area as well as working with City by-law enforcement staff to manage the parking issues.

Lloyd also inquired about the status of the road right of way used by visitors last summer to access the beach at Fifty Point. Lisa Burnside responded that staff continue to work with the Town of Grimsby staff and review our files to confirm property boundaries.

Chad Collins requested safety signage and social media messaging be deployed to discourage visitors from going out on the Lake Ontario ice mounds at Confederation Beach Park. Gord responded that staff will follow up on this request.

BD12, 2864

**MOVED BY: Dan Bowman
SECONDED BY: Maria Topalovic**

THAT the verbal update on the Conservation Areas Experiences be received as information.

CARRIED

10. New Business

There was none.

11. In-Camera Items for Matters of Law, Personnel and Property

BD12, 2865

**MOVED BY: Santina Moccio
SECONDED BY: Maria Topalovic**

THAT the Board of Directors moves *in camera* for matters of law, personnel and property.

CARRIED

Brad Clark left the meeting.

During the *in camera* session, one personnel matter was discussed.

11.1. Confidential Report – BD/Mar 01-2021

Lisa Burnside and Neil McDougall provided a joint summary of the memorandum and answered the members' questions.

BD12, 2866

MOVED BY: Chad Collins

SECONDED BY: Tom Jackson

THAT the confidential memorandum entitled BD/Mar 01-2021 be received and remain in camera.

CARRIED

BD12, 2867

MOVED BY: Jim Cimba

SECONDED BY: Santina Moccio

THAT the Board of Directors moves out of *in camera*.

CARRIED

12. Next Meeting

The next meeting of the Board of Directors will be held on Thursday, April 1, 2021 at 7:00 p.m.

13. Adjournment

On motion, the meeting adjourned.

Neil McDougall
Secretary-Treasurer

GWYNETH XAGORARIS

5.3

86 Little John Rd
Dundas , Ontario
L9H 4G7

February 24, 2021

Hamilton Conservation Authority
838 Mineral Springs Rd
Ancaster, Ontario
L9G 4X1

Dear Board of Directors

I am a resident of Dundas and an avid enjoyer of our natural conservation areas around Dundas and Hamilton.

I have noticed, like yourselves, that there has been an increased use of the waterfalls in the Dundas area over the past number of years and especially during our Covid times. This is likely due to people having to engage in outdoor activities and the fact the beauty of the Hamilton Waterfalls is becoming well known as an attraction.

This past Saturday I noticed many people receiving tickets for parking along Hwy 2 near Tiffany's Falls. I rather think there is a lot of money to be made in ticketing people , however the relentless ticketing is not going to solve the issue.

I am suggesting that a business plan expanding on your busing to and from Spencer Gorge Falls be considered. It would take the cooperation of Dundas Business Association and the schools along Governors Road.

Use the parking lots at DVSS and SWO, perhaps St Bernadettes (offer a \$5.00 parking fee) and have people park there for visitation to the falls. Also , as you did in years past, use Christie Conservation Area. Have 1 to 3 buses on 45 minute rotation picking people up from the schools, going up Old Ancaster Road, dropping off at Sherman Falls, then a stop (perhaps at The Old Mill- for refreshements) , then on to Tiffany Falls . The drive would be back along towards Dundas, stopping once in the town . This would allow people to partake of shopping and restaurants (that is why you would approach Dundas BIA with perhaps advertising assistance dollars?) and then upto Spencer Gorge Falls.

Using printed maps, or a well designed app, people could be encouraged to walk from Sherman Falls to Tiffany Falls along the Bruce Trail.

Given the popularity of the falls in winter time, you may even consider the bus during January and February.

Our Falls and hiking areas are beautiful. I do not see the demand for accessing them diminishing and I do encourage that more proactive tourism (rather than just increasing fines) be enacted.

Just now I have thought of a "guided hike" idea: walk the three falls and stop at three Breweries! What a great way to engage local businesses and keep people from parking illegally, control traffic flow and make more income.

Perhaps you have all thought of this concept already. And if so, I apologize for wasting your time.

Gwyneth Xagoraris

ANNUAL REPORT 2020

Hamilton Conservation Authority

6.1



Hamilton
Conservation
Authority

A Healthy Watershed for Everyone

Our **Vision** - where we want to be

A healthy watershed for everyone

Our **Mission** - what we do

To lead in the conservation of our watershed and connect people to nature



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Message from HCA's Board Chairman and CAO

As we all know, 2020 was one of the most unusual years on record for HCA. While our start to the year was fairly typical, the global COVID-19 pandemic brought a number of new challenges to our organization. After an initial closure, we maintained essential operations and business services, gradually reopened, and hosted a non-stop stream of visitors to our wonderful outdoor green spaces.

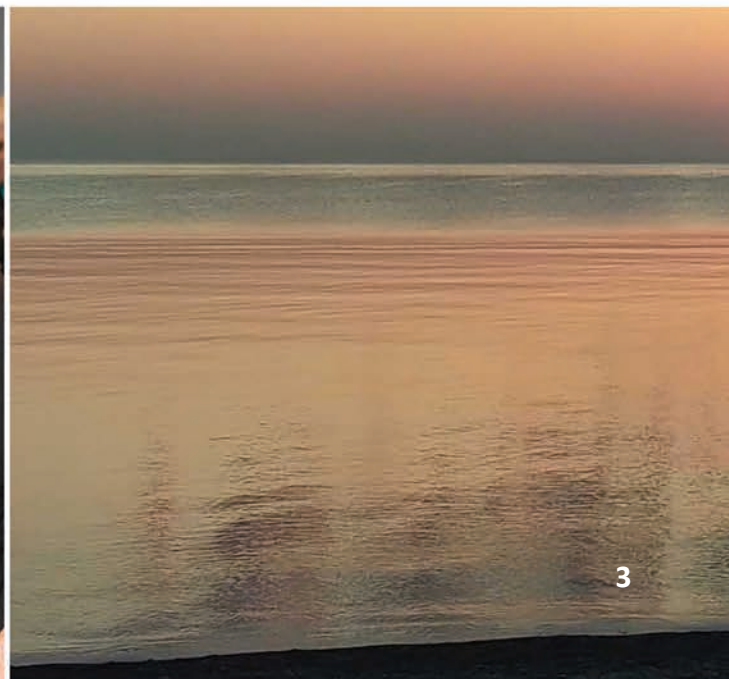
Despite these difficulties, we managed to accomplish initiatives in all of our strategic plan areas. Our diligent focus on the strategic priority area of Organizational Excellence paid dividends. It didn't occur with the timing and circumstances we had planned but we did it!

We embodied our corporate values by embracing new technology, promoting teamwork and providing solution-oriented approaches, all while using our available resources responsibly. With these combined efforts, we safely and successfully adapted our operations to meet these challenges and maintained our full workforce at HCA, which was a top priority.

We all had to adjust to new working procedures, protocols, PPE and virtual meetings and communications. For some staff, this also required setting up office space at home.

Staff from every division and department played an important role: our Conservation Areas Services, Capital Projects, Watershed Planning & Engineering, Millgrove Works Yard and main office for our administration and support services.

To say that people were glad to get back to nature when we reopened is an understatement. Visitors embraced our conservation areas, beaches, trails, parks and other facilities in a way that none of our long-term staff has ever seen in their careers. In our view, a silver lining of this very stressful pandemic is that people are reconnecting with nature.



Our conservation lands are the green lungs of our big, industrial city. We have more than 11,000 acres of woods, 145 km of trails, fields, streams, wildlife and plant life under HCA's care and protection. After this year, we have seen just how vital these spaces are and that protection is for the health of our community. We will continue promoting our vision of a healthy watershed for everyone.

Ontario's 36 conservation authorities were created over 60 years ago to address concerns regarding the poor state of the natural environment and the need to establish programs based on watershed boundaries for natural resource management. We continue to bring the local watershed science and information into the decision-making process to ensure that Ontario's communities are protected. We help steer development to appropriate places where it will not harm the environment or create safety risks for people.

As the year drew to a close, the Province introduced changes to the Conservation Authorities Act with a few initial legislative amendments taking immediate effect. We will continue to work with the Province to develop updates that make sense at the local level and protect our watershed.

While it has certainly been one of the most challenging years any of us can remember, we sincerely thank everyone for your confidence and support to pull us through. We are tremendously proud of our staff efforts this year and are pleased to share this annual report and our accomplishments as we continue to work and live alongside the pandemic.



Councillor Lloyd Ferguson
HCA Board Chairman



Lisa Burnside
HCA CAO

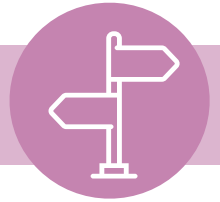


Organizational Excellence



- HCA social media feeds at all-time highs for followers
 - Facebook Page: 18,859 likes
 - Instagram Followers: 10,258
 - Twitter Followers: 8,275
- 800 Photo Contest submissions received from our visitors for the annual Photo Contest
- \$13 million in operating revenue collected
- 60% of revenues self generated
- While events, group rentals and film shoot revenues were impacted due to the pandemic, our top 3 self generated revenue sources of gate admissions, marina operations and camping fees offset most impacts by year end

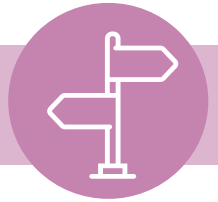




Organizational Excellence is focused on ensuring corporate and financial viability and the HCA's relevance in the community.

2020 Highlights

- Successfully maintained essential operations during pandemic closure and all permitted programs and services through the gradual reopening phases of the ongoing pandemic.
- Supported a dynamic work culture, safety, professional development and effectiveness of staff through:
 - Providing interview skills training to enhance legal and best practices to effectively find and hire staff that will contribute to the overall success of HCA.
 - Undertaking Indigenous Awareness training to develop staff understanding of the Indigenous communities/people, create opportunities for staff to learn about the cultural values, traditions, beliefs, and history of the communities within our region.
 - Seconding an internal staff member to coordinate the implementation of the recommendations flowing from the 2019 safety audit to improve HCA's health and safety management system and processes and positively impacting HCA's overall health and safety culture.
- Communicated the importance of our green spaces, watershed management role and emphasized our mission and vision statements with opinion articles in the Hamilton Spectator. These communication pieces outlined our visitor experience during the pandemic and addressed critical concerns with legislative changes to the Conservation Authorities Act.
- Completed 25 photoshoots for stewardship, ecology, the Foundation, and our conservation areas to communicate both internally and externally about what HCA does and why.
- Increased access to information and services by redesigning the websites of the HCA and Westfield Heritage Village to give them a new look and create an improved user experience for visitors.
- Managed a record-setting amount of social media comments and questions on all social media channels in regards to pandemic closures, gradual reopening, and Spencer Gorge reservations while maintaining an above average response rate
 - 190,000 views and almost 42,000 clicks were received by Google Ads alone for the Spencer Gorge reservation system.
 - Almost 50% increase in membership passes sold and set a new record for passes sold in a year. This speaks to the appreciation of our conservation areas and nature during the pandemic.
- Updated advertising campaigns, social media messaging, new graphics and in-area signs to reinforce the importance of health and safety during the pandemic, including trail etiquette, physical distancing while hiking and appeals to leave no trace behind by packing out garbage.



- Streamlined policies to enhance business service delivery, including:
 - An updated Pandemic Policy and creation of COVID-19 safety plan to continue our business operations.
 - In cooperation with Conservation Ontario, implemented and tracked new timing changes to streamline our regulatory process to meet the provincial commitment of increasing housing supply in Ontario while decreasing HCA permit approval timelines. These changes strive to more effectively serve our clients and improve permit approval efficiencies.
- Undertook additional steps to modernize the HCA records system which included:
 - Digitizing of historical records to PDF format with optical character recognition to allow for searching documents by keyword, significantly improving the efficiency of staff research.
 - Undertaking physical records inventories to refine the retention schedule.
 - Centralizing of a records storage area for appropriate storage and control and better protection from potential damage due to water seepage, mould and other elements.
- Collaborated and shared services and expertise through numerous forums and working groups with neighbouring conservation authorities and other partners, including the virtual Latonnell Conservation Symposium and Conservation Areas Workshop. HCA staff participated, presented and assisted with the organization of the events.



Water Management

- **92** permits were issued in total
- **15** Major Permits were issued
- **40%** of Major Permit applications were processed within the 63-day service target in our Client Service Standards
- **77** Minor Permits were issued
- **62%** of Minor Permit applications were processed within the 42-day service target in our Client Service Standards
- **17** flood forecasting and warning messages
- **8** sites monitored for water levels
- **10** sites monitored for precipitation
- **4** sites monitored for snow pack





Water Management is undertaken to protect the watershed for people, property, flora and fauna, and natural resources through flood and erosion control, water quality programs, low flow augmentation and adaption strategies to adapt to changing climatic conditions.

2020 Highlights

- Continued work on flood plain mapping for the Stoney Creek Numbered Watercourses, Battlefield Creek and Stoney Creek.
- Declared first Level 1 Low Water Advisory since 2016 when three-month precipitation totals were below 80% of long-term averages, and/or when 30-day average stream flows were below 70% of the minimum average summer month flow. Watershed Planning & Engineering staff made corresponding adjustments to dam outflows to balance reservoir levels and stream flows.
- Continued our partnership with the Halton-Hamilton Source Protection Region with the following highlights for 2020:
 - Deployed social media posts to commemorate the 20th year since the Walkerton drinking water tragedy, and to reiterate the importance of watershed-based planning.
 - Renewed Memorandum of Agreement for the Source Protection Management Committee, ensuring continued strong governance for the Halton-Hamilton Source Protection Program.
 - Completed Lake Ontario and groundwater vulnerability assessments and draft policies to manage risks from oil pipeline spills.
 - Presented to the Association of Municipalities of Ontario board about road salt impacts, the legislative framework, and best practices.
- Undertook Public Safety Assessments for Valens Lake dam and Christie Lake dam areas, partially funded through the Provincial Water and Erosion Control Infrastructure funding program.
- Monitored water quality in Spencer, Chedoke, Ancaster and Borer's Creeks as a part of ongoing work with the City of Hamilton and partners on the Hamilton Harbour Remedial Action Plan (HHRAP). This work included completing an annual monitoring report and submitting this report to HHRAP, the City of Hamilton and the Ministry Environment, Conservation and Parks. Flow gauges have been installed at the Lower Spencer Creek and Lower Chedoke Creek sampling locations, to allow for more accurate loading estimates in the future.



- Continued to invest in monitoring programs and networks, including assessing impacts of nutrient and sediment loading through:
 - Provincial water quality and groundwater quality monitoring completed for six surface water sites and seven groundwater sites.
 - Annual Rothsay water quality sampling program assessing and confirming no water quality issues regarding effluent discharges to the watercourse and Christie Lake.
 - Annual City of Hamilton water monitoring projects including groundwater well inspections at 85 wells, groundwater well water quality sampling at 33 wells, and erosion site monitoring at 22 sites.
- Continued stewardship programs for restoration projects including:
 - Installed 4 stormwater LID features that collectively have the capacity to divert over 280,000L of stormwater from combined sewers.



Natural Heritage Conservation

- **1,900 Hazard trees removed and 500 trees were pruned** by HCA forestry staff from conservation areas and rental properties for safety and tree health
- **Through completion of the update to Ecological Land Classification at Fifty Point, ecology staff identified:**
 - **236** plant species, representing 16% of the regional flora
 - Some interesting species found include **Giant Ragweed and Rattlesnake Master**
- **Through completion of Seine Netting at Valens Lake, ecology staff identified:**
 - **8** different fish species from the 591 that were netted, with Pumpkin Seed and Largemouth Bass being the most common
 - **62** Common Carp were also identified, following the 2018 carp die-off
 - **2** species of crayfish; Calico and Northern clearwater



Natural Heritage Conservation



Natural Heritage Conservation is the conservation, restoration and enhancement of watershed natural areas and ecology.

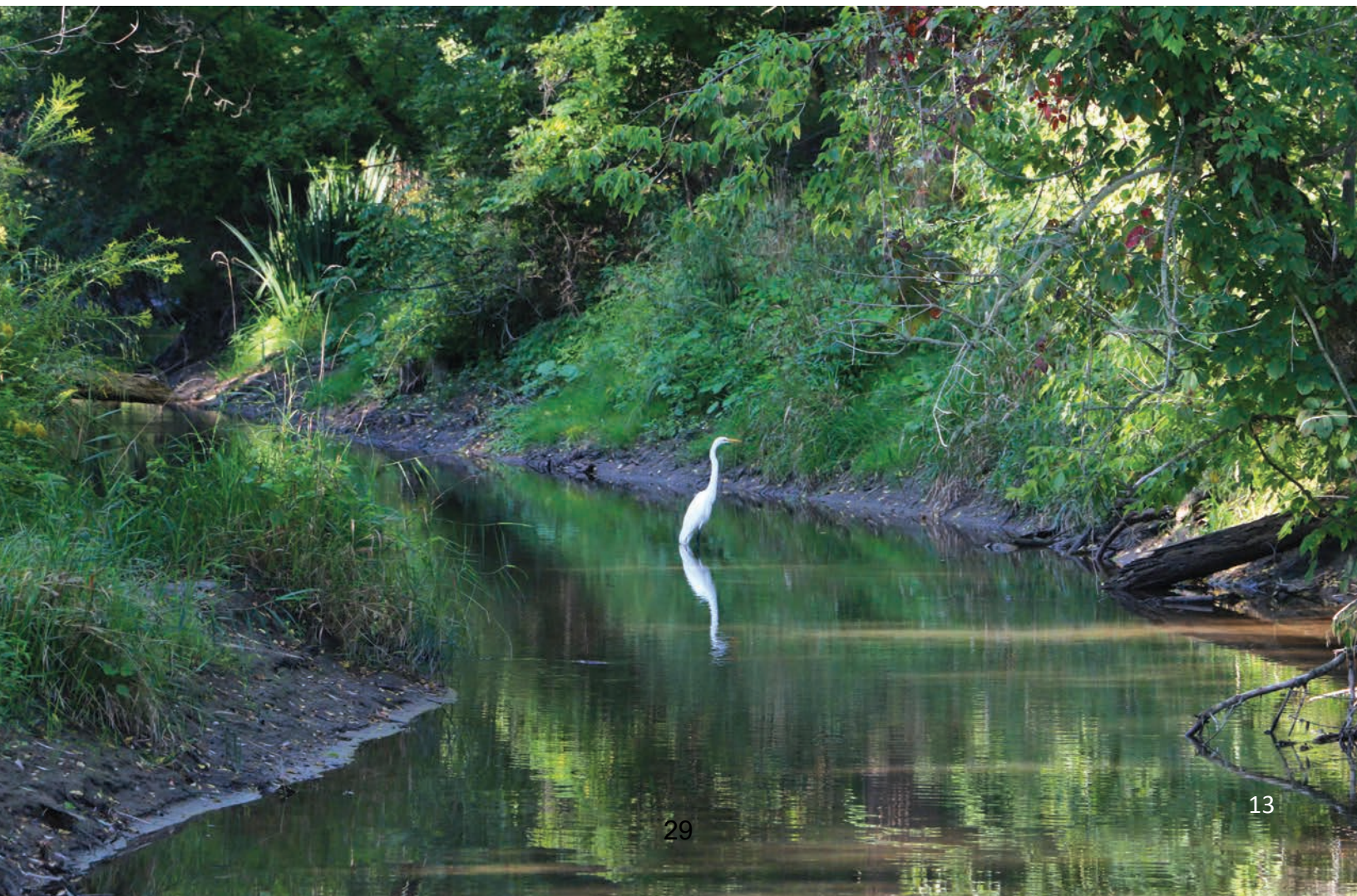
2020 Highlights

- Implemented and invested in the further development of the Saltfleet Conservation Area to offset the impacts of climate change:
 - Continued work with the consultant to complete the wetland design for one wetland in the Stoney Creek watershed and one wetland in the Battlefield Creek Watershed. These designs will be used to obtain agency approvals in 2021 and for tendering for construction.
 - Received \$50,000 in funding from the Friends of the Greenbelt Foundation towards the Saltfleet wetland project to assist with the cost of studies required to finalize the design.
 - Undertook archaeological surveys required towards finalizing design plan for the establishment of the first two wetlands with additional work planned for 2021.
 - Completed an ecosystem services valuation and business case in collaboration with the Greenbelt Foundation. The completed study notes that the Saltfleet project provides flood mitigation, recreation, biodiversity, carbon sequestration water quality and nutrient regulation through the creation of the wetlands. The study concludes that “Even by conservative estimates, this natural infrastructure capital investment would pay for itself and would provide additional value beyond grey infrastructure alternatives”.
- Carried out invasive species control and removal strategies in our watershed, including:
 - Sprayed over 13 acres of Phragmites at Lower Spencer Creek, Valens Lake, Westfield and Eramosa Karst with a contractor, making a big dent in our fight to reduce the amount of this invasive species.
 - Picked and removed two truckloads of Dog Strangling Vine from Lower Spencer, Fletcher Creek and Borer's-Rock Chapel to stop this invasive species from spreading. The pods are similar to milkweed and seed easily through the air.
 - Initiated trail-based invasive species surveys at Westfield Heritage Village, Saltfleet, Felker's Falls and Borer's-Rock Chapel Conservation Areas for accurate mapping and prioritization for future invasive species removals.
- Continued and expanded aquatic and terrestrial monitoring programs to assess watershed health:
 - Completed electrofishing surveys at 22 sites, 13 of the annual sites and most of the Year Two sites as well as two additional historical Redside Dace sites.
 - Completed benthic surveys in 13 annual sites.
 - Installed 12 temperature loggers in Spencer Creek Watershed.

Natural Heritage Conservation



- Carried out the annual Salmon Spawning Survey on Lower Spencer Creek. Additional time was spent on this years program monitoring fish migration and water levels due to drought conditions.
- Added four more EMAN (forest health) plots, completing the set-up of all 40 total allotments to monitor for tree health, invasive species, tree regeneration and ground vegetation.
- Continued work on regeneration surveys to inform future tree plantings and invasive species removal.
- Enhanced natural heritage features with tree plantings across our watershed including:
 - Planted 30 trees at Christie Lake, contributing to re-forestation and shade in the public picnic areas.
 - Volunteer planting at Valens Lake Conservation Area with Trees for Hamilton - 120 trees and shrubs planted by McMaster medical students and staff.
 - Volunteer planting at Fifty Point Conservation Area supported by the Hamilton Oshawa Port Authority (HOPA). Volunteers from HOPA and Trees for Hamilton helped plant 345 shrubs and 300 beach grasses along the shoreline.



- **1,000,000+ people visited** HCA's owned and managed conservation areas
- **8,100+ reservations** successfully made for Spencer Gorge pilot reservation system and the area safely hosted over 22,000 visitors
- **PANDEMIC IMPACTS:**
- **45% increase in nightly camping** at Valens Lake's campground
- **8,900 people purchased an HCA Membership Pass** which is a new annual record
- **Conservation areas with beaches reached full capacity** on approximately 12 midday weekend occasions
- **Fifty Point won Hamilton Spectator Reader's Choice Award for Best Marina**

Conservation Area Experience





Conservation Area Experience is the provision of 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.

2020 Highlights

- Completed and adopted an updated Valens Lake Conservation Area Master Plan as well as management plans for Beverly Swamp, Fletcher Creek Ecological Preserve, and the Lafarge 2000 Trail.
- Undertook preliminary work to update the Fifty Point Master Plan including installing trail and vehicle counters in the conservation area to collect attendance data and undertaking ecological surveys.
- Implemented 8-week pilot reservation service for Spencer Gorge Conservation Area as a result of COVID pandemic and to evolve visitor management for the area. This site preparation for the reservation included:
 - Undertaking entrance and area improvements at Tew Falls, including a new gatehouse, auto gate and sliding gate as well as new steel picket safety fencing at Dundas Peak.
- Implemented new visitor experience programs at Westfield Heritage Village as a result of COVID pandemic with Six Spot Tours for safe visitor experience as well as a new limited outdoor event called Fireflies and Fairy Dust which sold out in one day. Despite the pandemic, 141 volunteers at Westfield donated over 4,000 hours towards programs.
- Once the Fifty Point marina was permitted to reopen in May, the marina remained full through the season and saw 48 boats on the waiting list. Throughout the Fall, Fifty Point hosted three film shoots and a few boaters/campers were asked to participate. Experienced first ever mid-day closures during the summer when parking lots filled.
- With the cancellation of events, Christie Lake completed many area improvements such as painting and installing additional docks, trail improvements and handled large visitor numbers for the trails, beach areas and experienced a large increase in horseback riders.
- Valens Lake broke many records for camping and day use and remained very busy into November. Successfully operated the camp store through a take out window. Experienced first-ever mid-day closures during the summer when parking lots filled.
- Dundas Valley experienced increased hikers, bikers and equestrians and required security support for numerous parking lot locations to help control traffic. One of the busiest weekends of the year was in November, far surpassing the traditional Thanksgiving weekend.

Conservation Area Experience



- Invested in projects to enhance and expand recreation experiences, including:
 - Secured site safety for Chippawa Trail Silos with potential future works under consideration working with a public group interested in restoration.
 - Replaced 85 feet of boardwalk at Eramosa Karst and carried out trail improvement.
 - Replaced 109 sections of boardwalk on the Dofasco Trail with new wood for a total of 1,200 feet in 2020, approximately 2/3 of the total boardwalk is completed to date.
 - Installed new drinking water well and central water treatment system at Westfield Heritage Village Conservation Area.
 - Continued construction work on Valens Cabins with underground services installation (water, sewer, hydro), and exterior and interior work underway.
 - Resurfaced Little Squirt Works splash pad & Easy River ride during facility closure due to COVID to comply with Public Health requirements.
 - Completed new event parking for Hermitage Ruins, including tree plantings supported by the Ancaster Lions Club, and added two new memorial benches.
- Worked with partners and HCA representatives on committees and councils which helped prepare the draft 10-year Strategic Plan for the Cootes to Escarpment Ecopark System. This Plan will be released for public input and subsequent release in 2021.



Education and Environmental Awareness



- **22 volunteer events hosted**
- **Volunteers planted over 800 new plants**
- **600+ pounds of garbage collected and removed at the Annual Rail Trail Cleanup**
- **Virtual environmental education program topics created** for plants, soils, worms and vermiculture, complete with experiments and complementing worksheets
- **Hamilton is a Bee City now**
HCA stewardship and education programs were recognized in supporting pollinator habitats with the City of Hamilton receiving recognition as a Bee City. The designation and YouTube video showcases the collective efforts of individuals, organizations, and the municipality in supporting wild bee populations.





Education and Environmental Awareness is the opportunity to provide outdoor learning experiences for students, teachers and the community, increasing knowledge and awareness of the value of our environment and heritage.

2020 Highlights

- Created online learning resources for the public to use at home during the initial pandemic lockdown in spring, including:
 - Over 25 “Nature at Home” interactive activity sheets, interpretive information and colouring sheets for independent use in the backyards and local parks or during a walk in the neighbourhood to learn more about the natural environment.
 - Over 10 “History at Home” activity sheets and virtual tours at Westfield Heritage Village, for parents and teachers to find out what life was like 200 years ago. Not only are people using the program at home, but also to conduct their own self-guided tours.
- Hosted six sold-out birdwatching hikes in the Dundas Valley and Valens Lake Conservation Area. Hikes were led by DVCA Conservation Area Technician and bird expert, James Lees. The variety of birds spotted included warblers, Blue-Winged Teals, Sora Rails, sparrows, Greater Yellowlegs, robins, blackbirds and even a Bald Eagle soaring in the sky.
- Created an Outdoor Education Guidebook to provide teachers with new school programming opportunities. This created an opportunity whereby HCA education staff could program either directly on the school site, or virtually stream programming, for primary, junior, intermediate and senior students along with digital media experiences.
- Environmental Education staff worked with Mohawk College Broadcasting, Television and Communications Media students to create videos and streamed programming for primary, junior, intermediate and senior students. Weekly livestream sessions will further expand available programs and will be an invitation for students to ask questions about biology, ecology, geology and other topics.
- Enhanced stewardship programs for both urban and rural areas through the Hamilton Watershed Stewardship Program, including:
 - Assisted with the organization of the Sharing Experiences Workshop, a biennial one-day capacity building workshop for individuals and community groups interested in creating positive environmental change. There were 108 participants, which included representation from 27 youth and 49 different organizations.
 - Installed a habitat feature for Barn Swallows (Species at Risk).
 - 52 volunteers worked on stewardship projects to enhance 5 acres of natural areas by clearing invasive species.
 - Created 2 acres of forest habitat through the planting of over 1,400 trees.
 - Enhanced 330m of watercourse and created 1.8 acres of riparian habitat through livestock restriction projects.
 - 3 landowners recognized with the Watershed Stewardship Award.
 - Decommissioned 6 abandoned water wells within the City of Hamilton.

Education and Environmental Awareness



- Supported community participation and volunteer group coordination with two clean up events:
 - Hosted the 2nd Annual Rail Trail Clean Up where 31 volunteers helped collect over 40 bags of garbage. Some unusual finds included shopping carts, a dresser, bed spring & mattress and kitchen tiles.
 - Aviva Insurance volunteers came out to the busiest section of Confederation Beach Park and dedicated four hours to help clean up litter. In the heat and sun, these dedicated volunteers collected nine bags of garbage and five bags of recycling.
- Promoted the connection between environmental health and human wellness through the Healthy Hikes campaign to encourage residents to step into nature at our conservation areas.



Message from the Hamilton Conservation Foundation

Who we are

The Hamilton Conservation Foundation helps protect and enhance natural and cultural legacies by raising and stewarding funds for the Hamilton Conservation Authority.

The Foundation raises funds in three key areas:

- Acquiring and Protecting Environmentally Sensitive Land
- Teaching Children About Nature
- Celebrating Cultural Heritage



2020 at a glance

Although it was a more challenging year, the Foundation contributed just under \$400,000 to support Conservation Authority programs and projects in 2020, including:

- Outdoor Environmental Education –\$103,538
- Dofasco 2000 Boardwalk Restoration –\$101,500
- Eramosa Karst plantings –\$71,229
- Saltfleet Conservation Area Wetland Restoration Project –\$68,759

HCA staff support the initiatives of the Foundation in many ways, including making donations totaling approximately \$4,000 through payroll deduction and one-time gifts.

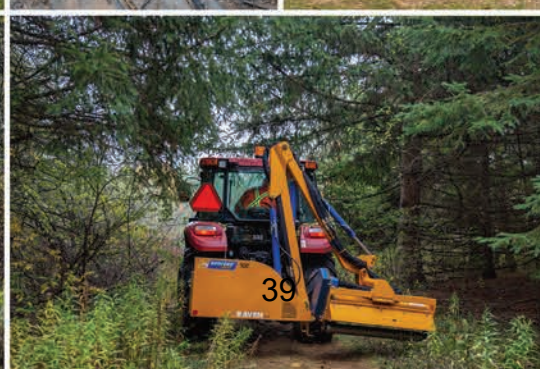
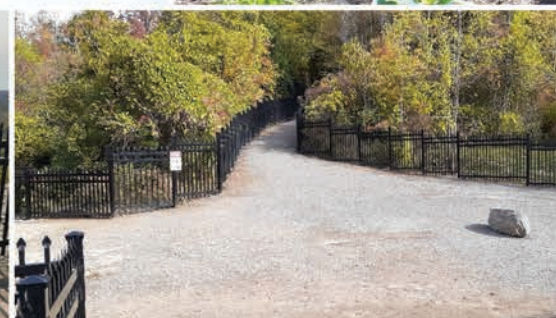
New Initiatives in 2020

- With HCA Marketing staff, created an in-house video for the Foundation, thanking donors and to help with donor engagement.
- With a grant from Canada Summer Jobs, initiated a project to catalogue all tribute benches across the watershed in order to have a better way of locating them and to identify locations for future benches.











**Hamilton
Conservation
Authority**

A Healthy Watershed for Everyone

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Report

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO, Director, Watershed Planning & Engineering

MEETING DATE: April 1, 2021

RE: Natural Heritage Offsetting Policy Discussion Paper

STAFF RECOMMENDATION

THAT the Board of Directors approve the Natural Heritage Offsetting Policy Development Discussion Paper, dated April 1, 2021;

THAT staff be directed to circulate the Discussion Paper and to initiate consultation with the City of Hamilton, County of Wellington and the Township of Puslinch, and;

THAT the Discussion Paper be made available on the HCA website and through social media in order to obtain stakeholder and public feedback.

BACKGROUND

On November 5, 2020, the Board of Directors approved the following motion:

“THAT the Board of Directors direct staff to review and develop natural heritage offsetting policy to be included in the Hamilton Conservation Authority’s Planning & Regulation Policies and Guidelines document.”

At the February 4, 2021 Board of Directors meeting a memorandum was provided to HCA Directors to detail the framework staff proposed to undertake this policy review and development as well as to detail the timing and agency consultation to be undertaken for this review.

The February 4, 2021 memo detailed that a Discussion Paper would be prepared to provide an overview of the issues at hand relating to offsetting policy and to provide a

method to engage and communicate with our stakeholders and the general public regarding the development of a potential offsetting policy. The following timing was proposed:

- April 1, 2021 – Discussion Paper presented to Board of Directors
- April 8, 2021 – Discussion Paper presented to Conservation Advisory Board
- Mid April to June 2021 – Discussion Paper circulated for agency review and public consultation
- Fall, 2021 – Draft Final Offsetting Policy presented to Board of Directors

STAFF COMMENT

The attached Discussion Paper has been prepared and provides an overview as follows:

1. Background
2. Offsetting Definition in Context Biodiversity and Natural Heritage
3. Key Principles of Offsetting
4. Provincial Policy Review
5. Conservation Authorities Act and Regulation
6. Review and Analysis of Existing Offsetting Policy and Implementation Guidelines
7. Review of City of Hamilton and County of Wellington Official Plan policy
8. Review of existing Hamilton Conservation Authority Policy Framework relating to Natural Heritage
9. Offsetting Policy and Implementation Approach for Stakeholder and Public Input
10. Next Steps.

The intent of the Discussion Paper is to highlight the above noted information and to solicit stakeholder and public engagement and comments to help guide the development of natural heritage offsetting policy as directed by the Hamilton Conservation Authority Board of Directors.

Staff propose to circulate the Discussion Paper to the City of Hamilton, County of Wellington and the Township of Puslinch for consultation purposes. Further, the Discussion Paper will be made available on the HCA website and through social media in order to obtain stakeholder and public feedback. Consultation with our partner municipalities, stakeholders and the public will take place from mid April to the end of June, 2021.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Natural Heritage Conservation**

- Initiatives – Promote sustainable development by working with the City of Hamilton on natural heritage issues and undertake the HCA plan input and review program

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

Not applicable.

CONCLUSIONS

Through the previous memorandum, the framework and timing proposed to develop a natural heritage offsetting policy and associated consultation has been detailed. The next step is to circulate the Discussion Paper to obtain feedback from our partner municipalities, stakeholders and the public. Comments received will help guide the development of natural heritage offsetting policy as directed by the Hamilton Conservation Authority Board of Directors.

Hamilton Conservation Authority Natural Heritage Offsetting Policy Development Discussion Paper

April 1, 2021



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Hamilton Conservation Authority Natural Heritage Offsetting Policy Development Discussion Paper

Table of Contents

1. Background
2. Defining Offsetting in the Context Biodiversity and Natural Heritage
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4. Provincial Policy Review
5. Conservation Authorities Act and Regulation
6. Review and Analysis of Existing Offsetting Policy and Implementation Guidelines
7. Review of City of Hamilton and County of Wellington Official Plan policy
8. Review of existing Hamilton Conservation Authority Policy Framework relating to Natural Heritage
9. Draft Offsetting Policy Framework
10. Next Steps and Approach for Stakeholder and Public Input

Endnotes

References

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1. Background

The Hamilton Conservation Authority (HCA) has initiated a review of its Planning & Regulation Policies and Guidelines (PRPG) document in regard to natural heritage offsetting. This review is being undertaken following a motion by the HCA Board of Directors at their November 5, 2020 meeting in response to a development proposal, where it was approved:

“THAT the Board Directors direct staff to review and develop natural heritage offsetting policy to be included in the Hamilton Conservation Authority’s Planning & Regulation Policies and Guidelines document.”

Additionally, in 2020, the Province continued with its review of the Conservation Authorities Act with significant changes approved. While regulations to implement numerous legislative changes to the Conservation Authorities Act have yet to be passed, mandatory permits for Ministerial Zoning Orders (MZO) were implemented effective December 8, 2020. Mandatory permits through MZO’s provide direction regarding the requirement to enter into agreements relating to ecological compensation and the HCA has no policy or guideline direction in this regard.

HCA staff are guided in our review of municipally circulated land use planning applications and permit applications submitted pursuant to the HCA’s *Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Regulation 161/06* by Provincial policy and technical guidelines, as well as the HCA Board of Directors approved Planning & Regulation Policies and Guidelines (PRPG) document (2011). The PRPG is a Board approved document, and staff are not able to deviate from the policy direction of this document without direction from the HCA Board of Directors.

HCA staff undertake reviews and updates of the PRPG to ensure policies reflect Provincial direction, current environmental issues and the health of the HCA watershed, and in order to ensure efficient and streamlined review processes for circulated and submitted applications. As noted, HCA currently has no policy or guideline direction related to natural heritage offsetting. Offsetting has emerged as an approach for compensating and/or replacing natural heritage features and functions that have been impacted by development projects or other activities. HCA notes over the past number of years, several Conservation Authorities have reviewed and implemented policies and approaches related to offsetting.

This Discussion Paper has been developed to consider natural heritage offsetting and how it may work within the context of the Hamilton Conservation Authority and our member municipalities. This Discussion Paper is intended to:

1. Define what offsetting means in the context of bio-diversity and natural heritage.
2. Detail the key principles of offsetting as well as recent work on this issue in Ontario.
3. Provide an overview of Provincial policy.
4. Provide an overview of regulations in the Conservation Authorities Act
5. Undertake a review of existing offsetting policy and documentation in Ontario with a specific focus on conservation authority experience.
6. Undertake a review City of Hamilton and Township of Puslinch Official Plan policy framework as it relates to offsetting, development and natural heritage.
7. Provide an overview of the existing policy framework relating to natural heritage conservation within the current HCA Planning & Regulation Policies and Guidelines document.
8. Provide a draft offsetting policy framework for agency and public comment based on the completed reviews noted above.
9. Outline next steps and approach for stakeholder and Public input to solicit engagement and comments to help guide the development of natural heritage offsetting policy for the HCA Board of Directors consideration.

2. Defining Offsetting in the Context of Biodiversity and Natural Heritage

The concept of offsetting is not new and has been reviewed and highlighted in various publications and jurisdictions as early as the 1970s. In reviewing the literature, reference is made to a variety of terms, including natural heritage offsetting, biodiversity offsetting and ecosystem offsetting, but in each case ‘offsetting’ is the key term used to describe situations where some form of compensation is provided to address negative impacts or harm to valued ecological features or functions as a result of development activity. “Simply put, it involves a transaction between development proponents and offset providers (e.g., landowners, land trusts, Indigenous communities) to compensate for harm to biodiversity at one site by creating, restoring or enhancing biodiversity elsewhere, generally on a “like for like” basis. At its core, biodiversity offsetting entails a trade-off: accepting harm on the condition that it is counterbalanced by beneficial actions so that in the end nature is no worse off – or ideally even better off”¹.

In the Ontario Nature document titled “Key Issues in Biodiversity Offset Law and Policy, A Comparison of Six Jurisdictions, June 2015” it is noted that the most commonly cited definition is:

“Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function, and people’s use and cultural values associated with biodiversity”.²

Credit Valley Conservation (CVC) in their “Ecosystem Offsetting Guidelines, March 2020” states:

“Natural heritage offsetting is an approach to offset the adverse impacts of land use change on the natural heritage system through the creation or restoration of natural features.”³

Toronto Region Conservation Authority (TRCA) in their “The Living City Policies, November 28, 2014” states:

“Compensation – in the context of conservation and land use planning, compensation is defined as the replacement of lost/altered ecosystem services and functions”.⁴

These definitions provide a helpful overview of offsetting for the purposes of this Discussion Paper. They reflect the common themes found in defining the concept, in that offsetting requires compensation for impacts to natural features and functions as a result of development, that offsetting is viewed as a last resort approach, and that where it is used the focus should be on no loss and preferably a net gain to the environment.

3. Key Offsetting Principles

Ontario Nature examined the concept of biodiversity offsetting between 2013-16, including conducting a series of stakeholder, expert and practitioner workshops, and producing the publications titled “Key Issues in Biodiversity Offset Law and Policy, A Comparison of Six Jurisdictions, June 2015” and “Biodiversity Offsetting in Ontario: Issues, accomplishments and future directions Summary of Ontario Nature’s 2014 – 2016 Project, October 2016”. Based on their review of offsetting from various jurisdictions these reports provide an overview of key principles to consider in the development of offsetting policy:

1. Adherence to the mitigation hierarchy
2. Limit to what can be offset
3. Landscape context
4. No net loss
5. Additional conservation outcomes
6. Stakeholder participation
7. Equity
8. Long-term outcomes
9. Transparency
10. Science and traditional knowledge

Building on these overarching principles, Ontario Nature through their completed workshops identified strong support for the following seven principles to be considered for offset policy:

1. Offsetting should be set within a clear mitigation hierarchy. First, negative impacts should be avoided wherever possible. Second, any unavoidable negative impacts should be minimized to the extent possible. Offsetting would then offer a means to deal with residual impacts that cannot be addressed through avoidance or minimizing harm.
2. Offsetting should require achievement of an overall net gain.
3. Some sites, features and habitats should be off-limits to offsetting, based for example on vulnerability and irreplaceability. The “no-go” criteria should be informed by science and Aboriginal traditional knowledge.
4. In establishing equivalence, the offset must take into account not only quantity (size) but also quality with respect to the condition of both sites and their landscape context.
5. The outcomes secured through an offset should last at least as long as the project’s impacts, and ideally in perpetuity.
6. The offset location should be based on desired conservation outcomes.
7. The pricing of offsets should cover the complete costs of the delivery of the offsets (including costs of entering into an agreement, creation and maintenance of the offsets, monitoring and reporting).⁵

These key principles provide an important overview of the issues related to offsetting for consideration in the development of any proposed HCA offsetting policy.

4. Provincial Policy Review

Planning and regulatory policy developed by the HCA needs to account for and “be consistent with” the Provincial Policy Statement, 2020 (PPS). The introduction to Section 2.0 Wise Use and Management of Resources states “Ontario’s long-term prosperity, environmental health, and social well-being depend on conserving biodiversity, protecting the health of the Great Lakes, and protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits”.⁶

As it relates specifically to Natural Heritage, Section 2.1.2 of the PPS states “The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features”.⁷ Based on this, the overall policy direction as it relates to natural heritage is that of maintaining and restoring natural features, functions, biodiversity, linkages and water features. It does not speak to the removal of these features and it is important to note that the words compensation and offsetting do not appear in the PPS.

The PPS further states that development is not permitted in significant wetlands in Ecoregions 5E, 6E and 7E as well as significant coastal wetlands. The HCA is in Ecoregion 7E. For features such as significant woodlands, significant valleylands, significant wildlife habitat and significant areas of natural and scientific interest, development is not permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. This policy framework speaks to the protection of the feature with development only permitted when it is demonstrated that the natural features and functions would not be negatively impacted. While not stated in the PPS, and subject to municipal policy direction, it would be in these instances that natural heritage offsetting could be considered.

The Greenbelt Plan and the Niagara Escarpment Plan provide provincial direction as well regarding the natural heritage system of the Greenbelt as well as the natural and physical features of the Niagara Escarpment Plan. The policy direction of the Greenbelt Plan and the Niagara Escarpment Plan are included within municipal official plans and zoning by-laws to ensure conformity with these provincial documents. Any ecological offsetting policy proposed must meet the requirements contained in these documents.

5. Conservation Authorities Act and Regulations

In 2015 the Ontario government initiated a review of the Conservation Authorities Act and its Regulations. This review is on-going, and most recently, on December 8, 2020, the Province approved the Budget Measures Act (Bill 229) which included further changes to the Conservation Authorities Act, specifically Schedule 6 of that Bill details the changes to the CA Act. These changes confirm that natural hazards will remain a mandatory program for conservation authorities. The changes do impact natural heritage as a program area and the legislation dictates that an agreement between the conservation authority and its member municipalities is required to facilitate and cover the costs of such a program. The implementing regulations for these changes to the Conservation Authorities Act have not yet been developed and as such, the actual requirements related to these programs is not known. These requirements may have an impact on what would be included in an offsetting policy and specific requirements.

As part of the changes to the Conservation Authorities Act, the province has included requirements related to mandatory permits and zoning orders. These changes are now in full force and effect. The following excerpts from the Conservation Authorities Act details the requirements relating to zoning orders and the mandatory requirement to issue permits. Section 28.1.2 (1) outlines that this requirement only applies for a zoning order issued for lands outside of the Greenbelt.

“28.1.2 (1) This section applies to any application submitted to an authority under section 28.1 for a permit to carry out a development project in the authority’s area of jurisdiction if,

- (a) a zoning order has been made by the Minister of Municipal Affairs and Housing under section 47 of the *Planning Act* authorizing the development project under that Act;
- (b) the lands in the authority’s area of jurisdiction on which the development project is to be carried out are not located in the Greenbelt Area designated under section 2 of the *Greenbelt Act, 2005*; and
- (c) such other requirements as may be prescribed are satisfied. 2020, c. 36, Sched. 6, s. 17.”

Section 28.1.2 (3, 4) details that the permit is to be issued by the conservation authority.

“28.1.2 (3) Subject to the regulations, an authority that receives an application for a permit to carry out a development project in the authority’s area of jurisdiction shall issue the permit if all of the requirements in clauses (1) (a), (b) and (c) are satisfied. 2020, c. 36, Sched. 6, s. 17.

Same

- (4) For greater certainty, an authority shall not refuse to issue a permit to carry out a development project under subsection (3) despite,
 - (a) the prohibitions in subsection 28 (1) and the fact that the development project may not meet the criteria for issuing a permit under subsection 28.1 (1); and
 - (b) anything in subsection 3 (5) of the *Planning Act*. 2020, c. 36, Sched. 6, s. 17.”

The conservation authority may attach conditions to a permit to mitigate “any effects the development project is likely to have on the control of flooding, erosion, dynamic beaches or pollution or the conservation of land as well as any conditions or circumstances created by the development project that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property”. It is noted that the proponent can request a Hearing before the Board of Directors or a review by the Minister if there are concerns regarding any conditions specified.

Section 28.1.2 (17, 18 and 19) provides direction regarding the requirement to enter into an agreement relating to ecological compensation for these mandatory permits.

“28.1.2 (17) An authority that issues a permit to carry out a development project under this section shall enter into an agreement with respect to the development project with the permit holder and the authority and the permit holder may add a municipality or such other person or entity as they consider appropriate as parties to the agreement. 2020, c. 36, Sched. 6, s. 17.

(18) An agreement under subsection (17) shall set out actions or requirements that the permit holder must complete or satisfy in order to compensate for ecological impacts and any other impacts that may result from the development project. 2020, c. 36, Sched. 6, s. 17.

(19) No person shall begin a development project until an agreement required under subsection (17) has been entered into. 2020, c. 36, Sched. 6, s. 17.

This section of the CA Act directs that compensation shall take place and that an agreement must be entered into to set out the requirements of such compensation. This Discussion Paper is intended to highlight the issue of offsetting or compensation and the development of policy direction that would set a policy framework for offsetting in the HCA watershed. The changes to the CA Act by-passes this policy framework approach and speaks directly to implementation. In this regard, a proposed offsetting policy will need to include implementation guidelines to address the overall HCA policy approach as well as the direction of Section 28.1.2 of the Conservation Authorities Act. Implementation guidelines are to be used “only after the decision to offset has been made by the approval authority”⁸ and would address as an example natural area function, natural area features, connectivity, planting and species composition, location of offset, replacement ratios and the principle of ecological net gain.

6. Review of Existing Offsetting Policy and Implementation Guidelines

The review of existing offsetting policy within this Discussion Paper focuses on policy that has been developed by conservation authorities. The following provides an overview of the policy approach at the Toronto Region Conservation Authority, Credit Valley Conservation and the Lake Simcoe Region Conservation Authority.

Toronto Region Conservation Authority

TRCA’s “Living City Policies” document (2014) provides a policy framework that includes opportunities for compensation when it is determined that it is not feasible to protect the full natural heritage system. The policies note that “if a natural feature itself cannot be protected, TRCA may recommend compensation. However, compensation is a management tool that should only be used as a “last resort”, being an option only where federal, provincial and municipal requirements do not protect the feature, and

only after all other options for protecting the feature have been evaluated.”⁹ Further, “TRCA will always advocate first for the protection of natural features and the full Natural System. However, when planning or environmental assessments approval processes permit losses to the natural system, compensation can be a mechanism for replicating ecosystem services.”¹⁰

The TRCA’s policies highlight that an objective is to “advocate first that natural features should be protected in situ and that compensation should:

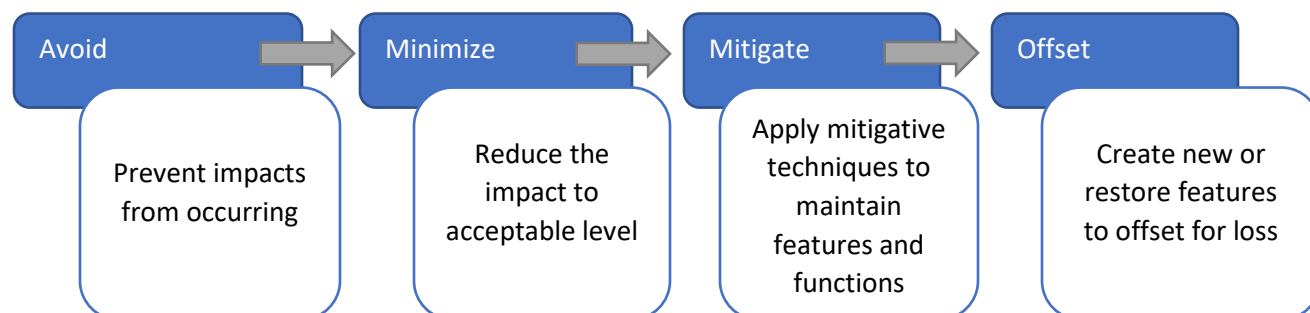
- Only be considered once the protection hierarchy has been applied – avoid/minimize/mitigate first;
- Where feasible, take place in proximity to where the loss occurs;
- Be informed by current knowledge of TRCA’s ecosystem and watershed strategies and any applicable municipal strategies;
- Strive for no loss of ecosystem services;
- Be carried out in a transparent and timely manner;
- Be based on an adaptive management approach incorporating monitoring and evaluation, where appropriate”¹¹

In addition to this policy framework, TRCA also has “Guidelines for Determining Ecosystem Compensation, June 2018”. This document guides the technical requirements for compensation after the decision to compensate per the above policies has been made.

Credit Valley Conservation

CVC’s “Ecosystem Offsetting Guidelines, March 13, 2020” outline that “the application of offsetting shall be consistent with relevant provincial, municipal and other approval authority natural heritage system planning policies, legislation and regulations. Offsetting may not be appropriate or permitted in all cases. Proponents are encouraged to consult the appropriate approval authority to discuss the applicability of ecosystem offsetting. These guidelines are intended to ensure offsetting activities remain a last resort and that all efforts for protection on site have been considered before contemplating removals.”¹²

Offsetting is guided by a mitigation hierarchy as detailed in the CVC’s “Ecosystem Offsetting Guidelines, March 13, 2020”.



The document specifically notes that “the goal of protection and ideally enhancement of the natural system and that the intent of this guideline is not to weaken this goal or diminish the ability to protect ecosystems in situ.”¹³ CVC specifically notes that the guidelines are only to be used after the decision to offset has been made by the approval authority. “Where avoidance and mitigation measures are not possible or financially feasible, offsetting may be considered where the approval authority deems it possible and the plan continues to conform with federal, provincial, municipal and conservation authority requirements. In addition, natural heritage features and areas may be impacted through the construction or expansion of infrastructure through the environmental assessment process – including other development-related activities requiring permitting pursuant to Section 28 of the Conservation Authorities Act.”¹⁴

CVC’s “Ecosystem Offsetting Guidelines, March 13, 2020” provide for their approach to offsetting as well as guiding the technical requirements for compensation after the decision to compensate has been made. This highlights the hierarchy mitigation approach and the need for alignment with municipal planning approaches and to be consistent with federal, provincial and municipal legislation, regulation and policies.

Lake Simcoe Region Conservation Authority

LSRCA’s “Ecological Offsetting Policy, May 2019” provides for a similar approach for the mitigation hierarchy as follows:

1. Avoid - Prevent impacts from occurring by changing project location, scope, nature of timing of activities.
2. Minimize - Reduce the duration, intensity and/or extent of impacts that cannot be avoided.
3. Mitigate - Rehabilitate or restore features or functions that have been exposed to impacts that could not be avoided or minimized.
4. Compensate - Create or restore new habitat to compensate for loss that could not be avoided, minimized or mitigated.

The “Ecological Offsetting Policy, May 2019” notes that a goal of the LSRCA’s Strategic Plan “is to support a safer, healthier and more liveable watershed through exceptional integrated watershed management. The development and implementation of an Ecological Offsetting Policy supports this goal by providing a consistent approach to natural heritage protection, enhancement and restoration throughout the watershed.”¹⁵

LSRCA provides for prerequisites required for ecological offsetting as follows:

“Prior to the approval of any development application proposing compensation for the loss of wetland or woodland feature, the following conditions must first be satisfied

through an approved Environmental Impact Study (EIS), Natural Heritage Evaluation (NHE) or equivalent:

- ✓ Demonstrate conformity with applicable provincial, regional and local plans, including the Oak Ridges Moraine Conservation Plan, Greenbelt Plan, Growth Plan for the Greater Golden Horseshoe, Lake Simcoe Protection Plan, and Official Plans.
- ✓ Satisfy the “no negative impact test” for the loss of natural heritage feature to ensure consistency with the Provincial Policy Statement (PPS)
- ✓ Assess the impacts to natural heritage features such as wetlands, woodlands, and watercourses, as well as their associated vegetation protection zones.
- ✓ Demonstrate that the mitigation hierarchy steps of avoiding, minimizing and mitigating have been followed and that compensation is the only viable option to address impacts to natural heritage features
- ✓ Include a preliminary Ecological Offsetting Strategy (EOS) that describes, in concept, how the loss of natural heritage feature will be compensated for. This would include identifying the feature to be removed, location where it will be replaced and general principles for feature creation.”¹⁶

Exceptions are provided where offsetting would not be required. These exceptions include agricultural uses, an accessory structure and single detached dwelling on an existing lot of record. These exceptions relate to existing permitted uses, small scale proposals development allowances for a lot of record. Exceptions are also permitted subject to criteria for small wetland and woodland features. Proposals that require approval under LSRCA’s permit regulation (Ontario Regulation 179/06) and no approvals under the Planning Act are not subject to the Ecological Offsetting Policy.

The LSRCA’s outlines that “An Ecological Offsetting Strategy (EOS) will be required where compensation is the only viable option to address impacts to natural heritage features. It will be the responsibility of the developer or proponent to develop and implement this EOS. The EOS must demonstrate how the loss of natural heritage feature will be compensated for and that this offset will result in a “net gain” of natural heritage features. Ecological offsetting compensation projects must be both feasible and completed within a reasonable timeframe, preferably prior to the removal of the original feature. The EOS must also include a monitoring component to ensure the successful installation of compensation projects.”¹⁷

Like TRCA’s and CVC’s approach, the LSRCA’s “Ecological Offsetting Policy, May 2019” document highlights their approach to offsetting and notes this can be considered when compensation is the only viable option to address impacts to natural heritage features. This highlights the hierarchy mitigation approach and the need to be compliant

with municipal planning approaches and with federal, provincial and municipal legislation, regulation and policies.

Summary

TRCA's, CVC's and LSRCA's policies as highlighted above provide three current examples of conservation authority policy and best practice related to ecological offsetting. Each policy framework shares similarities in that offsetting should take place only after the approach has been endorsed by the approval authority, the mitigation hierarchy has been followed, offsetting should be considered as part of an overall planning approvals process with a no net loss and ideally a net gain in natural features approach and that, as a starting point, natural features should first be protected in situ.

It is also noted that the Nottawasaga Valley Conservation Authority has also developed a document for discussion titled "Achieving Net Gains through Ecological Offsetting, January 2019". This document provides for a similar approach as highlighted above through the TRCA, CVC and LSRCA.

In the development of this Discussion Paper, HCA staff have had discussions with other conservation authorities that do not have an ecological policy framework in place but have been involved in offsetting. In these examples, the projects generally are not site specific and have involved broader planning processes such as environmental assessments and municipal secondary plans. These broader studies have involved identifying core natural areas within a natural system and ensuring these features are maintained. Offsetting is only considered for natural features identified but outside of the core and linkage areas. Offsetting allows for these isolated features to be incorporated into the broader natural heritage system.

7. Review of City of Hamilton and County of Wellington Official Plan Policy

Local official plans are guided by the requirements of the Provincial Policy Statement specifically, as well as the policies of the Greenbelt Plan and the Niagara Escarpment Plan where they are in effect. As noted previously in this Discussion Paper, the overall policy direction of the PPS as it relates to natural heritage is that of maintaining and restoring natural features, functions, biodiversity, linkages and water features.

The City of Hamilton has an Urban Official Plan and Rural Official Plan in place. The City of Hamilton is the approval authority as it relates to natural heritage and applications considered for approval under the Planning Act. The policy direction of the plans notes that "provincial and local planning objectives for the Natural Heritage System focus on protecting, and restoring these features and natural functions as a permanent resource for the community."¹⁸ The plans include goals "To protect and enhance biodiversity and ecological functions, and to achieve a healthy, functional

ecosystem.”¹⁹ It is important to note that there is no policy direction in these plans that specifically allows for offsetting.

In general terms, the City of Hamilton’s Official Plans seek to protect and enhance core areas, natural heritage features and hydrologic features by not permitting development within these areas and by requiring buffer areas identified as vegetation protection zones. There are allowances in certain instances where development may be permitted provided there are no negative impacts on the feature or the ecological function. This would be demonstrated through the completion of an environmental impact study. The overall policy direction is that of protecting natural features and not permitting development. It would only be in the instances where development is permitted subject to the approved findings of an environmental impact study that offsetting could be considered. When the Official Plan policy of the City of Hamilton is considered, offsetting is not identified as an option.

The Township of Puslinch comprises a relatively small geographic area when considered in the context of the HCA overall watershed. However, the Township’s area within the HCA watershed is incredibly important from a natural heritage, surface water, groundwater and wetland perspective. The headwater features of Spencer Creek and Fletcher Creek are in the Township of Puslinch.

Official Plan direction for the Township is included in the County of Wellington’s Official Plan. The policy direction of this official plan is similar to the approach of the City of Hamilton in that development in certain features is prohibited, however, for some features development may be permitted subject to the completion of an approved environmental assessment. It is noted that the County of Wellington Official Plan does not contain natural heritage offsetting policy. As with the City of Hamilton, it may be in these situations that offsetting could be considered, however, like the comments above, offsetting may run counter to the intent to protect, maintain and restore natural heritage features per the official plan.

This process, if deemed acceptable, would need to be led by the municipality through a land use planning process. As noted, the City nor the County has no offsetting policies in place and the development of HCA natural heritage offsetting policy would best be developed, if that is deemed the desired course, so the City and County has the same approach, or at a minimum an approach that is not conflicting in this regard to natural heritage offsetting.

8. Review of existing Hamilton Conservation Authority Policy Framework relating to Natural Heritage

The “Planning and Regulation Policies and Guidelines, 2011” document is HCA Board of Director approved policy. This document guides staff in providing comments on

circulated planning applications and submitted permit applications. There is no allowance for natural heritage offsetting in this document. The policies and guidelines follow a similar approach to that of an official plan in that protection and maintenance of the natural feature is the goal. From this, development is not permitted in some cases or in other cases it may be permitted subject to the submission, review and approval of an environmental impact study showing that the features and functions of the natural feature will not be negatively impacted because of the development.

It is noted that based on the existing Memorandum of Agreement between the HCA and the City of Hamilton for the review of land use planning applications under the Planning Act, HCA provides technical review and input to the City in an advisory capacity. HCA relies on the PRPG document to inform its review of applications circulated by the City. However, the City is the approval authority on all land use planning applications, including for issues relating to natural heritage.

The PRPG document is also applied to HCA's review of permit applications submitted under HCA's *Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Regulation* (O. Reg. 161/06). Development proposals within regulated areas that are associated with watercourses, valleys, wetlands and the Lake Ontario shoreline require review and approval by the HCA. In considering such applications, HCA's policies consider the potential impacts of the proposed development on natural hazards and the environment.

9. Draft Offsetting Policy Framework

HCA could develop a natural heritage offsetting policy framework based on current examples and best practices, as reviewed and summarized in this Discussion Paper. Using other conservation authority examples and approaches as a guide, the following could be considered for the development of HCA's approach to Natural Heritage Offsetting Policy.

Introduction

If through a land use planning exercise or application, environmental assessment or an HCA Regulation permit application, it is determined that a natural feature cannot be protected, the HCA may accept offsetting. However, compensation is a management tool that should only be used as a "last resort", being an option only where federal, provincial and municipal requirements do not protect the feature, and only after all other options for protecting the feature have been evaluated in accordance with the mitigation hierarchy. While offsetting can be a mechanism to replicating natural features and the natural heritage system, the HCA will always advocate first for the protection of natural features and the full natural system.

HCA Natural Heritage Offsetting Policy Key Principles

1. **Adherence to the Mitigation Hierarchy** - Offsetting should follow conventions for mitigation and offsetting by applying a hierarchical approach:
 - 1.1. **Avoid the impact** - Priority is assigned to designing development projects to avoid natural heritage features and negative impacts wherever possible
 - 1.2. **Minimize the impact** - Efforts to minimize and mitigate any unavoidable negative impacts must also be considered.
 - 1.3. **Compensate/offset for the impact** - Offsetting could then offer a means to deal with residual impacts that cannot be addressed through avoidance or minimizing harm.
2. **Achievement of Net Gain** – Offsetting should be designed with watershed conservation objectives in mind, and to achieve an overall net gain to the natural heritage system. This is preferred over seeking a no net loss in the specific features affected by the development; an offset should achieve outcomes above and beyond results that would have occurred if the offset had not taken place.
3. **Offsetting has Limits** - Some sites, features and habitats should be off-limits to offsetting. This will include certain natural heritage features and functions based on rarity, vulnerability and irreplaceability. In recognizing that offsetting has limits and will not be appropriate in some circumstances, offsetting should be informed by policy direction, science and Aboriginal traditional knowledge as available, as well as site and surrounding landscape context.
4. **Equivalency** – The development of offsets and compensation must consider both the quantity (size) and quality of natural heritage features and functions in the context of the subject site(s) and surrounding landscape.
5. **Permanent Outcomes** - The outcomes secured through an offset should support local and regional conservation objectives and should be designed to last at least as long as the project's impacts, and preferably in perpetuity as part of the natural heritage system.
6. **Alignment with Municipal Policies and Approaches.** Offsetting should preferably align with City of Hamilton and County of Wellington/Township of Puslinch Official Plans and approaches.
7. **Cost Recovery** – When considering natural heritage offsets, the complete costs of the delivery of the offsets should be recovered, including costs of entering into an agreement, project implementation, and longer-term maintenance and monitoring of the offsets.

Natural Heritage Offsetting Policy

To accept in instances where it has been demonstrated that development or infrastructure cannot fully protect a natural feature or any other component of the natural heritage system, offsetting of these natural features and functions be provided, and

That a decision to accept natural heritage offsetting be subject to:

- a) the Natural System not being protected by any other applicable federal, provincial, or municipal requirement(s);
- b) all other efforts to protect the Natural System being exhausted first, in accordance with the mitigation hierarchy;
- c) that it be guided by the municipality in consultation with the landowner;
- d) that it takes place at the appropriate level of the planning and development process for maximizing options for enhancement to the natural system, e.g. secondary plans, environmental assessments.
- e) In circumstances of mandatory requirement to issue a permit under Section 28.1.2 of the CA Act, specific guidelines will be developed and followed for ecological net gain.

Any natural heritage offsetting policy will require implementation guidelines. While such implementation guidelines have not been developed as part of this Discussion Paper, there are examples of such guidelines available. These examples would be used in the development of final HCA Natural Heritage Offsetting Policy and Implementation Guidelines.

10. Next Steps and Approach for Stakeholder and Public Input

Natural heritage offsetting can be viewed as a potential benefit and management tool for the conservation of our natural heritage and it can be viewed as a slippery slope towards the loss of these natural heritage features and contrary to the approach to protect, enhance and restore features in place to ensure a healthy, biodiverse natural heritage system. The HCA knows there will be many viewpoints and approaches to this topic and we encourage you to provide your comments.

This Discussion Paper has been developed to highlight the issues involved and the approaches to natural heritage offsetting. It is intended to facilitate a review of this approach as it relates to natural heritage and to obtain input from our stakeholders and the public.

With the development of such policy, it will be important to ensure that the City of Hamilton and Township of Puslinch are engaged early in the process to ensure that any policy finalized has the support of the City of Hamilton and the Township of Puslinch and ideally, aligns with City and Township policy,

HCA wishes to ensure that anyone with an interest in this policy has the opportunity to provide input. The following questions are provided to help the HCA understand the approach and thoughts of our stakeholders and the public. Please do not feel restricted to answer only the questions, if you have additional thoughts and comments, please do not hesitate to provide your additional thoughts to the HCA.

1. What policies do you think should be put in place by HCA in regard to natural heritage offsetting?
2. Are there gaps or issues missed in the Discussion Paper that would help provide greater insight and direction relating to natural heritage offsetting policy?
3. Given that the Province has implemented mandatory permits through MZO which require offsetting, what should HCA do to conserve the natural heritage when such a permit is required?
4. An option for the policy is that any of our natural heritage offsetting policies or guidelines would be in line with the City of Hamilton and County of Wellington/Township of Puslinch approaches and policies. Therefore, decision related to offsetting would be led by the municipalities. What are your comments about this approach?
5. The Discussion Paper provides a draft policy framework in Section 9 that could be used by the HCA to finalize natural heritage offsetting policy. Does the framework approach provide adequate direction for protection of existing features and for offsetting as a natural heritage management tool?
6. Should the approach in the draft policy framework for offsetting be based on a “no net loss” or a “net gain” philosophy? What are your thoughts on preferred approach that makes it the best option?

Once comments have been received on the Discussion Paper, HCA staff will work towards finalizing the natural heritage offsetting policy for consideration by the Hamilton Conservation Authority Board of Directors. This is expected in the fall of 2021. The HCA thanks you for your interest in this proposal and look forward to receiving your comments.

With the exception of personal information, all comments received will become part of the public record.

Endnotes

1. Ontario Nature, Ontario Nature's Greenway Guide Series, Biodiversity Offsetting in Ontario: Issues, accomplishments and future directions. Summary of Ontario Nature's 2014-2016 Project, October 2016., 3
2. Ontario Nature, Ontario Nature's Greenway Guide Series, Key Issues in Biodiversity Offset Law and Policy, A Comparison of Six Jurisdictions, June 2015., 7
3. Credit Valley Conservation, Ecological Offsetting Guidelines, March 2013., 1.
4. Toronto and Region Conservation Authority, The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority, November 2018., 153.
5. Ontario Nature, Ontario Nature's Greenway Guide Series, Key Issues in Biodiversity Offset Law and Policy, A Comparison of Six Jurisdictions, June 2015., 4
6. Government of Ontario, Provincial Policy Statement, 2020, May 2020., 24.
7. Government of Ontario, Provincial Policy Statement, 2020, 24.
8. Credit Valley Conservation, Ecological Offsetting Guidelines, 1
9. Toronto and Region Conservation Authority, The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority, November 2018., 88.
10. Toronto and Region Conservation Authority, The Living City Policies, 88.
11. Toronto and Region Conservation Authority, The Living City Policies, 88.
12. Credit Valley Conservation, Ecological Offsetting Guidelines, 1
13. Credit Valley Conservation, Ecological Offsetting Guidelines, 7
14. Credit Valley Conservation, Ecological Offsetting Guidelines, 2.
15. Lake Simcoe Region Conservation Authority, Ecological Offsetting Policy, May 2017 (Revised May 2019)., 3.
16. Lake Simcoe Region Conservation Authority, Ecological Offsetting Policy., 5 and 6.

17. Lake Simcoe Region Conservation Authority, Ecological Offsetting Policy., 6
18. City of Hamilton, Rural Hamilton Official Plan, April 2014., C.2, 1 of 15.
19. City of Hamilton, Urban Hamilton Official Plan, September 2013, C.2, 1 of 9

References

BC Ministry of Environment. 2010. Towards an Environmental Mitigation and Offsetting Policy for British Columbia: A Discussion Paper. BC Ministry of Environment; Victoria, B.C., draft for consultation.

City of Hamilton, Rural Hamilton Official Plan, April 2014

City of Hamilton, Urban Hamilton Official Plan, September 2013

County of Wellington, County of Wellington Official Plan, January 2021

Credit Valley Conservation, Ecological Offsetting Guidelines, March 2013

Government of Ontario, Provincial Policy Statement, 2020, May 2020

Government of Ontario, Wetland Conservation in Ontario: A Discussion Paper, October 2015

Kate, K., Bishop, J., and Bayon, R. (2004). Biodiversity offsets: Views, experience, and the business case. IUCN, Gland, Switzerland and Cambridge, UK and Insight Investment, London, UK.

Lake Simcoe Region Conservation Authority, Ecological Offsetting Policy, May 2017 (Revised May 2019).

Nottawasaga Valley Conservation Authority, Achieving Net Gains through Ecological Offsetting, Guidelines for preparing a site-specific ecological offsetting plan. Draft for Discussion, January 2019

Ontario Nature, Ontario Nature's Greenway Guide Series, Biodiversity Offsetting in Ontario: Issues, accomplishments and future directions. Summary of Ontario Nature's 2014-2016 Project, October 2016

Ontario Nature, Ontario Nature's Greenway Guide Series, Key Issues in Biodiversity Offset Law and Policy, A Comparison of Six Jurisdictions, June 2015

Toronto and Region Conservation Authority, The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority, November 2018

Toronto and Region Conservation Authority, Guideline for Determining Ecosystem Compensation (After the decision to compensate has been made), June 2018

<https://www.oecd.org/environment/resources/Policy-Highlights-Biodiversity-Offsets-web.pdf>



Report

TO: Board of Directors

FROM: Lisa Burnside, Chief Administrative Officer (CAO)

RECOMMENDED & PREPARED BY: T. Scott Peck, MCIP, RPP, Deputy CAO, Director, Watershed Planning & Engineering

MEETING DATE: April 1, 2021

RE: Consultation on growing the size of the Greenbelt

STAFF RECOMMENDATION

THAT the Board of Directors approve the HCA responses provided in the table attached to the April 1, 2021 report titled “Consultation on growing the size of the Greenbelt”;

THAT staff be directed to submit this information to the Province of Ontario prior to April 19, 2021 as the HCA comments to the Environmental Registry of Ontario posting ERO#019-3136, and;

THAT HCA staff confirm with Conservation Ontario that the Board of Directors of the HCA have endorsed the comments as detailed in the attached table and previously provided to Conservation Ontario.

BACKGROUND

The Greenbelt Plan was first introduced in 2005. The most recent version of the Greenbelt Plan was approved July 1, 2017. The Greenbelt Plan, together with the Oak Ridges Moraine Conservation Plan and the Niagara Escarpment Plan provide direction regarding where urban development should take place to permanently protect agricultural lands and ecological and hydrological features, areas and functions occurring on this landscape. It is noted that the Oak Ridges Moraine Conservation Plan does impact the HCA as this landscape feature is located outside of the HCA watershed

“The Greenbelt is a broad band of permanently protected land which:

- protects against the loss and fragmentation of the agricultural land base and supports agriculture as the predominant land use.
- gives permanent protection to the natural heritage and water resource systems that sustain ecological and human health and that form the environmental framework around which major urbanization in south-central Ontario will be organized.
- provides for a diverse range of economic and social activities associated with rural communities, agriculture, tourism, recreation and resource uses.
- builds resilience to and mitigates climate change.

Section 5.6.1 of the Greenbelt Plan outlines that “The Province shall continue to explore opportunities to grow the Greenbelt to uphold and strengthen the Province’s growth management strategy and provide additional protection to sensitive areas from development pressures.”

On February 17, 2021, the Ministry of Municipal Affairs and Housing posted a proposal summary on the Environmental Registry of Ontario that they are seeking feedback on ways to grow the size of the Greenbelt. The posting is titled “Consultations on growing the size of the Greenbelt (ERO#019-3136) and highlights two priority areas. The Ministry is seeking feedback with initial focus on the Paris Galt Moraine and adding, expanding and further protecting Urban River Valleys.

The Ministry has also detailed principles for growing the Greenbelt as follows:

- No consideration of removal requests or land exchanges
- No consideration of policy changes
- Supports Greenbelt Plan objectives, vision and goals
- Follows Existing Amendment Process
- Connects physically and/or functionally to the current Greenbelt
- Considers impacts on existing provincial priorities

Lastly, the posting includes 6 questions that the Ministry is requesting feedback on as part of this consultation process. It is noted that the proposal is a high-level planning exercise at this point with the Ministry seeking feedback and direction on the initial ideas posed and answers to the provided questions.

STAFF COMMENT

The 6 questions provided by the Ministry in the posting and the HCA staff response to each question is provided in Appendix “A”. To summarize the staff response, the Paris Galt Moraine is a landscape feature and it is located outside of the HCA’s jurisdiction and is north of the top end of our watershed as detailed in Appendix “B”. The Paris Galt Moraine does however play an important role from a groundwater and hydrological perspective as the area is the headwaters of Fletcher Creek and ultimately, Spencer Creek. The coldwater features of this watercourse are dependent on the groundwater and hydrological regime in this area. In this regard, while the landscape feature is

located outside of the HCA's watershed, including the Paris Galt Moraine within the Greenbelt will serve to protect the groundwater and hydrological features and the associated benefits to Fletcher Creek and Spencer Creek. As such, staff are supportive of including the Paris Galt Moraine in the Greenbelt Plan

The Greenbelt Plan already identifies urban river valleys as show in Appendix C. The only urban river valley currently identified in the Greenbelt Plan located within the HCA watershed is Fifty Creek. The existing policies and proposed for urban river valleys only apply to public lands.

HCA is supportive of adding urban river valleys in principle, however, the HCA does not own any other lands along the Lake Ontario shoreline beyond Fifty Creek that include river valley lands. As such, we would want to ensure that the City of Hamilton is supportive of any policy direction in this regard.

Stoney Creek and Battlefield Creek are urban river valleys that connect Lake Ontario to existing Greenbelt designated lands above the Niagara Escarpment. The HCA has landholdings in this area including the Devil's Punchbowl Conservation Area and the Saltfleet Conservation Area and Stoney Creek and Battlefield Creek provide that linkage between Lake Ontario to these conservation areas and Greenbelt lands above the Niagara Escarpment. Including the river valley lands within the Greenbelt may strengthen that connection, but it is noted that as the policies only relate to public lands, the strength of this linkage is limited as it only applies to public lands.

HCA staff are aware that the City of Hamilton has considered the addition of urban river valleys in the past. It is noted that urban river valley protection is already in place through municipal land use planning documents that designate and zone these valleys open space or hazard lands which preclude development, the valleys are also subject to development restrictions from a floodplain and erosion (natural hazards) perspective and are regulated through conservation authority permit regulations. In this regard, urban river valley policies may be additional policy requirements to existing requirements that achieve the same end. As noted, the Greenbelt policies only apply to public lands. As such, while HCA staff is supportive of adding urban river valleys in principle, the rationale for this approach should be further detailed, and, at a local level, this additional policy may not be necessary given the already existing protections in place.

The remaining questions and the HCA response is detailed in the Appendix "A". These questions relate to defining boundaries for areas, other areas to potentially grown the Greenbelt and how to balance priorities. The HCA response speaks to:

- requiring science-based information and the geographical extent of the feature to define boundaries.
- confirming that within the HCA watershed the majority of the lands are already within the Greenbelt Plan area or the City's urban boundary with limited area available to add to the Greenbelt.

- the importance of protecting lands in the long term from a natural heritage perspective and to ensure people stay connected to nature.

At the March 4, 2021 Board of Directors meeting, a question was asked how this consultation relates to the Eramosa Karst Conservation Area and the associated feeder lands. HCA staff note that these lands are located outside of the Greenbelt Plan area and within the City of Hamilton's urban boundary. The lands are not part of a valley area that could be considered an urban river valley and would not be included as part of this process.

STRATEGIC PLAN LINKAGE

The initiative refers directly to the HCA Strategic Plan 2019 - 2023:

- **Strategic Priority Area – Natural Heritage Conservation**
 - Initiatives – Promote sustainable development by working with the City of Hamilton on natural heritage issues and undertake the HCA plan input and review program

AGENCY COMMENTS

Not applicable.

LEGAL/FINANCIAL IMPLICATIONS

Not applicable.

CONCLUSIONS

This report has been prepared to highlight the process the Province is undertaking in consulting on growing the Greenbelt. The report details HCA staff response to the questions posed as part of the consultation process and subject to Board of Directors approval, will be submitted to the Province before the April 19, 2021 commenting deadline. It is noted that the comments have been submitted to Conservation Ontario already to allow them time to summarize all conservation authority comments provided. Conservation Ontario will be advised when the HCA Board of Directors approves the comments.

Lastly, HCA staff will keep the Board of Directors apprised as this program proceeds and further details are provided by the Province.

Appendix “A”

Consultation on growing the size of the Greenbelt

(ERO#019-3136)

Consultation Table

Please submit comments to Nicholas Fischer (CO) by March 29th, 2021

(mailto:nfischer@conservationontario.ca)

Name: Scott Peck

Conservation Authority: Hamilton

As a reminder, please submit one comment table per CA. Thank you.

Consultation on growing the size of the Greenbelt	
Discussion Questions	CA Comments
What are your thoughts on the initial focus area of the Study Area of the Paris Galt Moraine?	<p>The Paris Galt Moraine as a landscape feature is located outside of the watershed of the Hamilton Conservation Authority. As shown on the provided Paris Galt Moraine (PGM) Study Area Map, the PGM is located immediately north on the HCA watershed boundary. With that said, the PGM does provide important benefits to the HCA’s watershed, specifically, the Fletcher Creek Swamp Forest. The “Hamilton Natural Areas Inventory, 3rd Edition, 2014” notes that “numerous springs where groundwater discharges from the overburden aquifer in the Galt Moraine have been noted in the northern portion of this area. The Galt Moraine functions as a regional groundwater recharge zone. Due to the shallow sandy soils in the inter-moraine area, the groundwater resource is susceptible to contamination. The hydrological regime of this large natural area is groundwater dependent. Land use changes within or in the vicinity of the study area could adversely impact the study area and the regional hydrological regime.”</p> <p>Further, “Fletcher Creek originates along the southeast face of the Galt Moraine. It drains</p>

	<p>through extensive wetlands before entering Spencer Creek. Groundwater discharge from the Galt Moraine combined with the moderating effects of the swamps, provides this headwater creek with a permanent high quality coldwater regime. The Fletcher Creek area serves two hydrological functions, it maintains the significant coldwater headwaters stream habitat and the regional hydrological balance.”</p> <p>It is with this background that the inclusion and addition of the PGM to the Greenbelt will serve to protect the function of the Fletcher Creek Swamp, the associated coldwater headwaters and the regional hydrological regime.</p>
What are the considerations in moving from a Study Area to a more defined boundary of the Paris Galt Moraine?	<p>It would be important that the considerations for a more refined boundary of the PGM be based on the actual extent of the feature on the landscape, technical guidance from reports that map the feature and to be science based to ensure the protection of the surface and ground water features.</p>
What are your thoughts on the initial focus area of adding, expanding and further protecting Urban River Valleys?	<p>The Greenbelt Plan contains policies related to Urban River Valleys and Fifty Creek is identified in the current plan as an Urban River Valley. The Fifty Point Conservation Area includes portions of Fifty Creek and the current policies of the Greenbelt Plan apply to this area. It is important to note that these policies only relate to publicly held lands.</p> <p>As it relates to adding additional urban river valleys, the HCA is supportive of this in principle. We note that the HCA does not own any other lands along the Lake Ontario shoreline beyond Fifty Creek that include river valley lands and as such, we would want to ensure that the City of Hamilton is supportive of any policy direction in this regard.</p> <p>With that said, HCA notes that Stoney Creek and Battlefield Creek are urban river valleys that connect Lake Ontario to existing Greenbelt designated lands above the Niagara Escarpment. Specifically, the HCA has landholdings in this area including the Devil’s Punchbowl Conservation Area and the Saltfleet Conservation Area. Stoney Creek and Battlefield Creek provide that linkage</p>

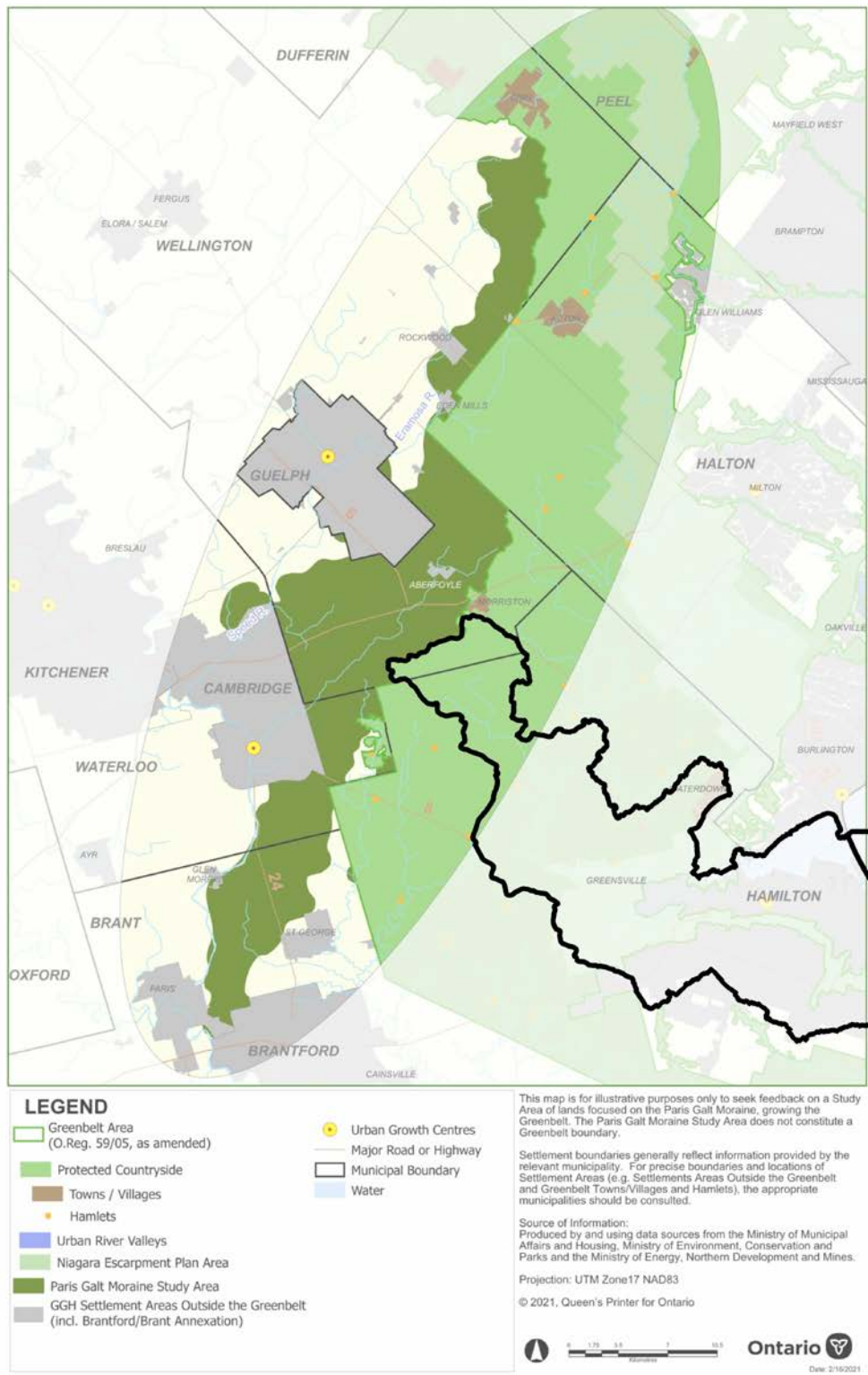
	<p>between Lake Ontario to these conservation areas and Greenbelt lands above the Niagara Escarpment. Including the river valley lands within the Greenbelt may strengthen that connection. As noted though, the policies only relate to public lands and as such, the protection the linkage noted would provide would be limited as it only applies to public lands.</p> <p>Further, HCA staff are aware that the City has considered the addition of urban river valleys in the past. In this regard, it is noted that urban river valley protection is already in place through municipal land use planning documents that designate and zone these valleys open space or hazard lands which preclude development, the valleys are also subject to development restrictions from a floodplain and erosion (natural hazards) perspective and are regulated through conservation authority permit regulations and requirements and certain lands are already in public ownership by the municipality in the form of parks and green spaces. The urban river valley policies may just be additional policy requirements in addition to existing requirements that achieve the same end. As already noted, the Greenbelt policies only apply to public lands. As such, while the HCA is supportive of adding urban river valleys in principle, the rationale for this approach should be further detailed, and, at a local level, this additional policy may not be necessary given the already existing protections in place.</p>
Do you have suggestions for other potential areas to grow the Greenbelt?	The majority of the HCA's watershed is already designated within the Greenbelt Plan or as within the Urban Boundary of the City of Hamilton. In this context and as it relates to our interests in the HCA watershed, we have no specific area to identify to grow the Greenbelt.
How should we balance or prioritize any potential Greenbelt expansion with the other provincial priorities mentioned above? (see ERO posting for priorities)	There will be lands that are set aside now and for the future. The Province's Growth Plan requires municipalities to designate land for residential and employment purposes. This should be done in concert with protecting natural heritage lands and agricultural lands. Designated features, provincially, regional and locally should be set aside and included in a Greenbelt Expansion

	while identifying lands, that may be available to growth subject to municipal official plans
Are there other priorities that should be considered?	The needs of people should be considered as well from a well-being perspective. People need places to live and work and they also need their communities to be livable, walkable with natural areas, landscapes and clean water. The social aspects of policies should be considered.

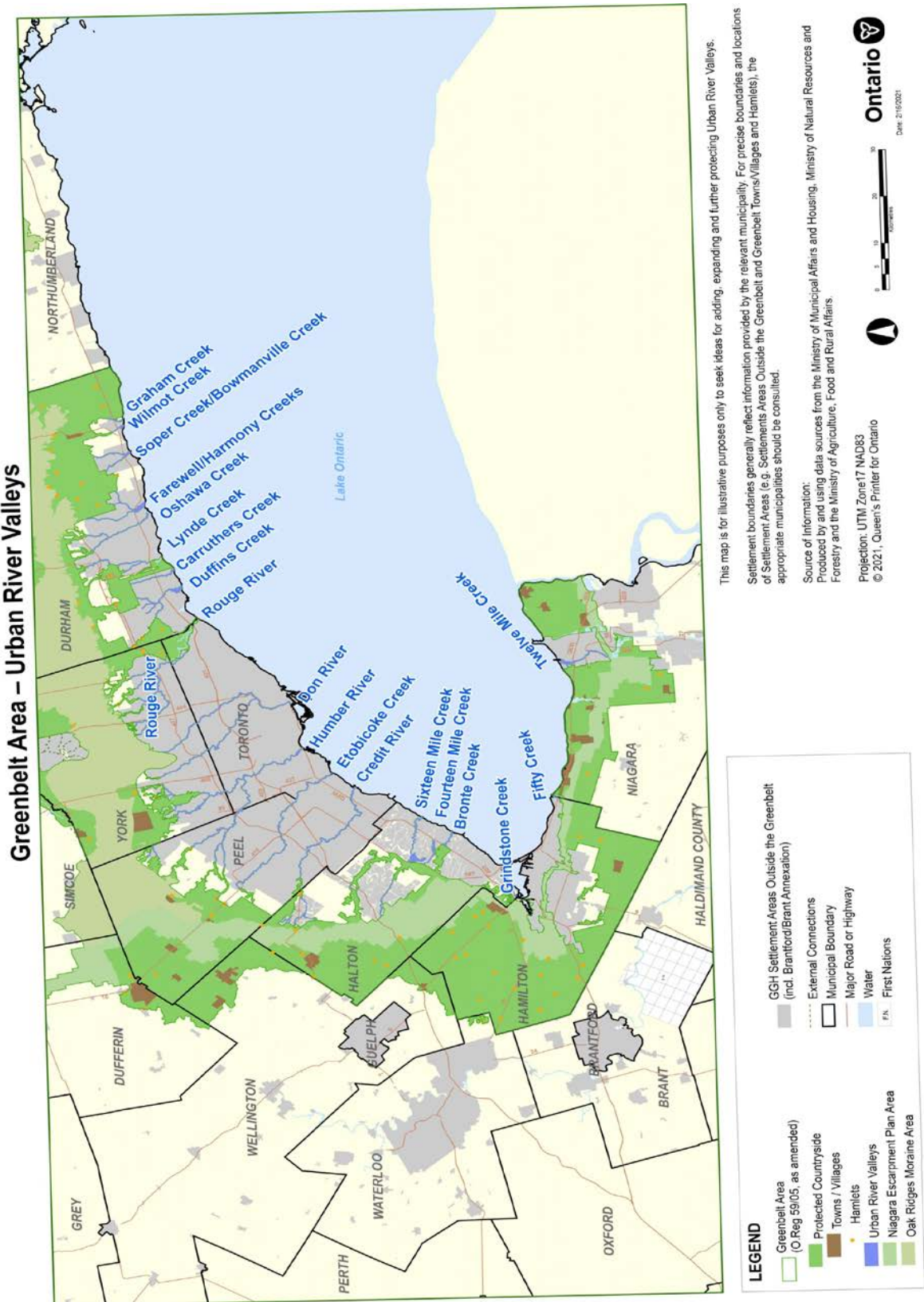
General Comments	
<i>Consultation on growing the size of the Greenbelt</i> <i>(ERO#019-3136)</i>	Thank you for the opportunity to comment on this proposal. HCA is supportive of efforts to identify and conserve natural heritage lands now and for future generations. Given the expected growth in Ontario, maintaining and enhancing natural lands and setting aside lands to be protected will be important so people can stay connected to natural areas and that the natural features of these areas can be maintained and enhanced as Ontario grows.

Appendix “B”

Growing the Greenbelt Study Area – Paris Galt Moraine



Appendix “C”



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 Planning & Engineering

PREPARED BY: Jonathan Bastien, Water Resources Engineering

MEETING DATE: April 1, 2021

RE: Watershed Conditions Report

SYNOPSIS

There have been no recent or current observations, reports, or expectations of significant watercourse flooding, public safety concerns, or Lake Ontario shoreline flooding. Presently, 25 to 35 mm of rain is anticipated for March 28 - 29, and HCA staff will continue to review the potential for public safety issues or significant watercourse flooding as this date approaches, and will take necessary actions if required.

The most recent low water assessment indicated that the watershed is not under drought conditions. Also, normal watershed conditions are expected to continue into April.

There are no concerns with current reservoir levels, which are at or slightly above the high end of the typical past winter water levels range.

In general, January, February and March streamflows have been well below long-term averages. That said, current and recent flows have been well above flows indicative of drought conditions at all monitored locations.

CURRENT WATERSHED CONDITIONS – March 19, 2021

Current Water Levels in Major Area Watercourses

Currently, there are no observations, reports, or expectations of significant watercourse flooding or significant public safety concerns.

Current flows are well below the long-term average monthly flows for March at all five monitored locations (Upper Spencer Creek at Safari Road, Middle Spencer Creek at Highway 5, Lower Spencer Creek at Market Street, Ancaster Creek at Wilson Street, and Redhill Creek at Barton Street). In addition, for the months of January, February and March to date, the average flows have been well below the long-term average monthly flows.

That said, current and recent flows are well above flows indicative of drought conditions at all five monitored locations.

Current Lake Ontario Water Levels

Currently, there are no observations, reports, or expectations of significant shoreline flooding. The Lake Ontario mean daily water level is approximately 74.51 m IGLD85. This is about 18 cm below average for this time of year, and about 86 cm below the record high set for this time of year (during 1952).

Current Storages in HCA Reservoirs

The current reservoir level at the Christie Lake dam (about 765.84 ft) is at the high end of the range of typical past winter water levels (765.30 - 765.80 ft), and is well below the range of typical past summer water levels (771.0 – 771.5 ft). The reservoir is at 19 % of its preferred maximum storage capacity (corresponding to a water level of 773 ft).

The current reservoir level at the Valens Lake dam (about 274.62 m) is slightly above the high end of the range of typical past winter water levels (274.15 to 274.40 m), but is well below the range of typical past summer water levels (275.25 - 275.45 m). The reservoir is at 55 % of its preferred maximum storage capacity (corresponding to a water level of 275.5 m).

Current Soil Conditions

The surface and root-zone soils are moist and fully thawed, presently.

RECENT STORM EVENTS

During the period of February 19, 2021 to March 19, 2021, there were no observations, reports, or expectations of significant watercourse flooding events, public safety issues, or Lake Ontario shoreline flooding events.

RECENT WATERSHED LOW WATER CONDITIONS

The most recent low water assessment indicated that the watershed is not under drought conditions. The 1-month, 3-month, and 18-month precipitation totals all indicated normal watershed conditions. 30-day average streamflows suggested normal conditions at all five monitored locations at the beginning of March.

FORECASTED WATERSHED CONDITIONS

Watercourse Flooding

There is currently one potential significant rainfall event (+20 mm in a day) forecasted for the watershed over the next two weeks. Presently, 25 to 35 mm of rain is anticipated for March 28 - 29, with 15 to 25 mm expected on March 29. As updated forecasts become available, HCA staff will continue to review the potential for public safety issues or significant watercourse flooding and will take necessary actions if required.

There is no remaining snowpack within the watershed.

Lake Ontario Shoreline Erosion / Flooding

There are currently no significant Lake Ontario shoreline flooding events anticipated within the watershed over the next 9 days.

According to International Lake Ontario – St. Lawrence River Board information, Lake Ontario levels are expected to continue its seasonal rise in water levels over the next several weeks as spring continues. It is noted that the actual rate and magnitude of water level fluctuations will depend primarily on the weather conditions which occur.

Watershed Low Water Conditions

Drought conditions are not anticipated within the watershed, moving into April. However, actual watershed conditions will be largely dependant on the amount of rainfall received.