

ANNUAL REPORT 2020

Hamilton Conservation Authority



**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.

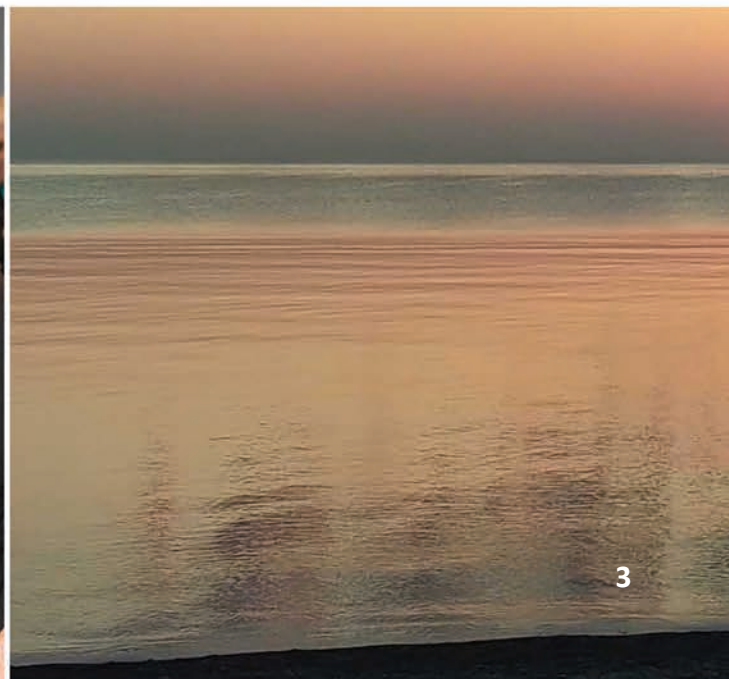
Despite these difficulties, we managed to accomplish initiatives in all of our strategic plan areas. Our diligent focus on the strategic priority area of Organizational Excellence paid dividends. It didn't occur with the timing and circumstances we had planned but we did it!

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

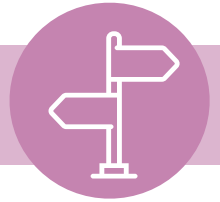


Organizational Excellence



- 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

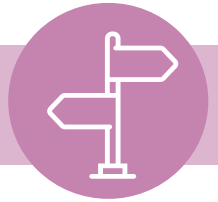




Organizational Excellence is focused on ensuring corporate and financial viability and the HCA's relevance in the community.

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

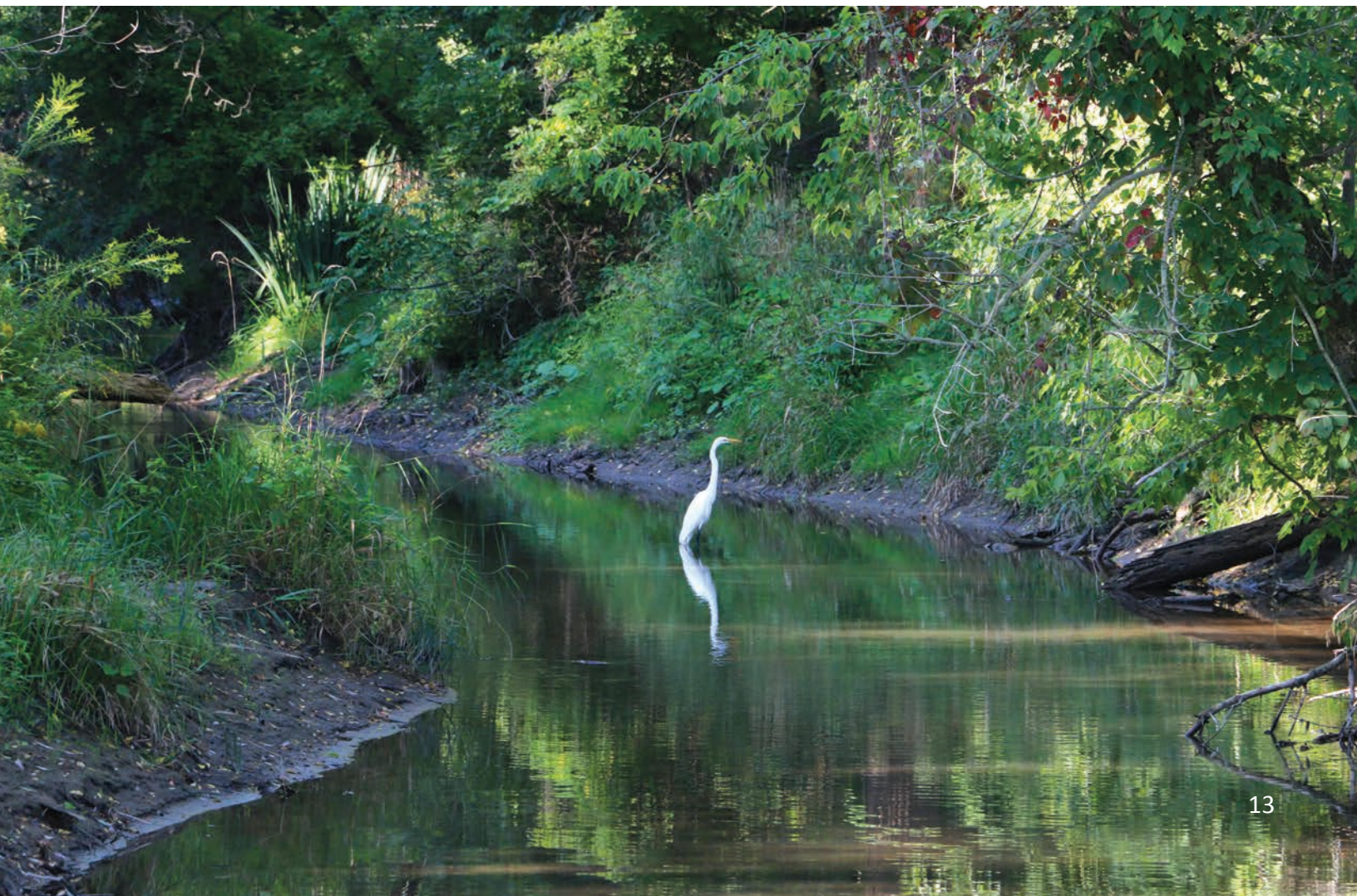
2020 Highlights

- 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



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.

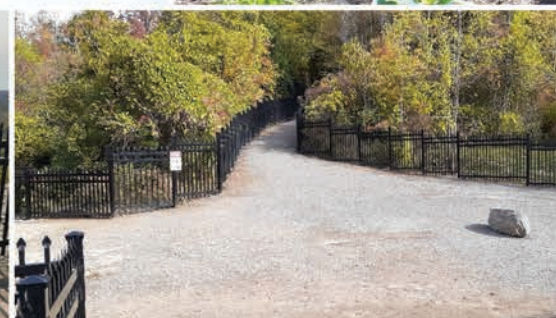
New Initiatives in 2020

- 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.











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